This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

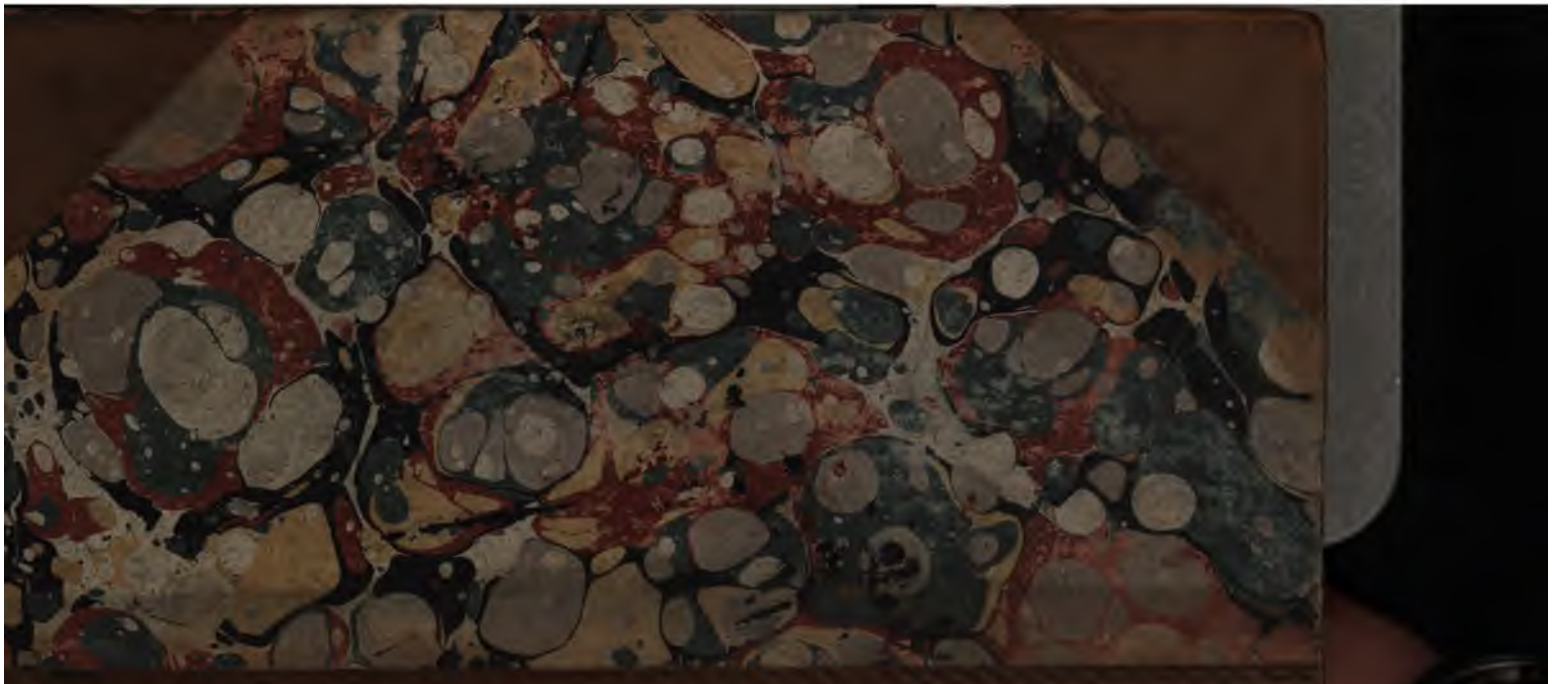
+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`



600041925R

33.
124.

MENTAL CULTURE.

MENTAL CULTURE;

OR THE MEANS OF

DEVELOPING THE HUMAN FACULTIES.

26

BY J. L. LEVISON.

"The volume of nature is the book of knowledge; and he becomes most wise, who makes the most judicious selection." GOLDSMITH.

LONDON:
PRINTED FOR THE AUTHOR.
AND SOLD BY JACKSON AND WALFORD,
18, ST. PAUL'S CHURCH-YARD.

[Entered at Stationers' Hall.]

1833.

124.

LOUTH:
PRINTED BY J. AND J. JACKSON.

PREFACE.

In this volume, which is submitted to the unprejudiced, we have endeavoured to show how practical and easy Moral Culture becomes, when the real nature of man is understood. It is the peculiar duty of those who frame the laws of a country, and of those who administer them for the preservation of society, to adopt such a system of mental philosophy as will enable them to ascertain what number of the primitive faculties are connate, and also to distinguish between their uses and their abused states. This knowledge, indeed, would give incalculable advantages to all who influence society, and particularly to the Parent and Teacher: it would enable them to discriminate those excesses of the feelings which result from mis-directed or neglected education, and demonstrate the circumstances most favourable to give a moral and intellectual bias to the

character of the rising generation. The fundamental truths of this science of mind are briefly stated in the first part of this work, and their practical application in the second; and the author hopes that a candid perusal of both parts will prove their value in developing and training the mental faculties.

J. L. LEVISON.

CONTENTS.

Page

INTRODUCTION, containing Observations on the General History of the Arts and Sciences, and on the Advantages of Civilized Society, as contrasted with Savage Life 1

CHAPTER I.

Structure and Uses of the Brain—Various Phenomena connected with this Organ from Infancy to Old Age—Prospective Wisdom of the Creator displayed in the Mental Seasons—Mode adopted for the Security and Preservation of the Brain—Its Membranes—The Wisdom of God manifested in the Provision for the Relative Changes of the Skull at the different Periods of Life 10

CHAPTER II.

General and Particular Views, on the Modification of the Activity of the Mental Faculties, by what are called Constitutional Temperaments—Explanation of each Temperament in the following order: the Nervous, the Bilious, the Sanguineous, and the Lymphatic—Shakespeare's Opinion of the Temperaments strictly Physiological—Sir George Mackenzie's Advice in studying Human Character—The Absurdity of referring any of the Mental Operations to Chance 17

CHAPTER III.

Explanation of the Uses and Abuses of the various Feelings or Propensities—Physical Love—Parental Instinct—Inhabitiveness, or Instinct of Place; Love of Country, a Modification of this Feeling—Instinctive Attachment, the Source of Friend-

Page

ship, Affection, and Esteem—Instinct of Courage—Destructive Propensity, or the Carnivorous Instinct—Instinct essential to Prudence—Instinct of Acquiring, of Contriving, Constructing, Building, &c.—Self-esteem—Approbation, or Desire of Applause—Instinctive Caution, a Source of Hesitation, Fear, Melancholy 24

CHAPTER IV.

Explanation of the Organs of the Moral and Religious Sentiments — Benevolence — Veneration — Firmness — Conscientiousness, or Natural Sense of Right and Wrong—Hope, its Uses and Abuses—Marvellousness, or Instinctive Credulity, one of the strongest Sources of Natural Religion—Ideality, a Source of Refinement, of Taste, Fancy, Imagination; and its Use in Poetic Composition—Wit—Imitation—Concluding Remarks on the Affective Faculties 51

CHAPTER V.

Introductory Remarks on the uses of the External Senses of Seeing, Hearing, Tasting, Smelling, and Touch, proving them to be the Instruments by which we acquire Knowledge, but that they are not the Cause of Intelligence—The superior Powers of the senses of Animals illustrated and adduced as a proof of this fact 74

CHAPTER VI.

General Observations on Perception—The Nature and Uses of the Perceptive Faculties—Individuality perceives Existence—Form, Size, Weight, and Colour, relate to the Qualities of Material Objects—Locality, Number, and Order, perceive the Relation of Objects—Eventuality, Time, Melody, and Language—Concluding Remarks 78

CHAPTER VII.

Remarks on the Reflective Faculties—The restricted Powers of Man—The good which results from cultivating the Reasoning Faculties; the Two-fold Nature of the latter process—The Functions of the Reflective Faculties explained: Comparison and Causality—How true Knowledge inspires Humility, Piety, and Gratitude to the Creator 95

CHAPTER VIII.

Page

Moral and Philosophical Reflections on the preceding sections—The Harmony of God's Providence in reference to our Mental Faculties; this Knowledge an Antidote to Infidelity—The Absurdity of charging these Views with a tendency to inculcate Fatalism of Actions—The Power of the Reflective and Moral Faculties in restraining Animal Abuses—The Means of preserving a healthy State of the Mind—The difference between Desires and Actions, and the Power which an Individual derives from the early Cultivation of his higher Faculties..... 102

CHAPTER IX.

General Remarks on Education—Causes of Failure in Moral Tuition—A Knowledge of Man, as a physical, organic, moral, and intellectual Agent, is essential to educate him on correct Principles—How to cultivate the Feelings or Propensities—Means of preventing Anger, Pugnacity, Evasion, Slyness, Cunning, Pride, Vanity, and of so directing the Natural Faculties as to prevent their degenerating into Abuses—The baneful Effects of Flattery—Remarks on the Force of Example; concluding with some few Observations on the Characters of Teachers 117

CHAPTER X.

Moral Culture continued—Benevolence, Piety, and Justice ought to be the Motives usually appealed to—The Injudiciousness of Corporeal Punishments—The fatal consequences of Public Punishments—The demoralizing Effects of Rewards—Rewards in Money or Books only excite the lower Feelings—Principle inculcated, that it is no Merit to do our Duty—Rewards excite Pride, Vanity, and Avarice, and deaden the Moral Sensations—Employment of Time to be diversified by Study and Relaxation—The superior Advantages of Public Tuition, if so conducted—Much depends on the Respectability of the Master—The moral Power of the Teacher, if he gains the Confidence of a Pupil..... 163

CHAPTER XI.

Rationale of Moral Culture; a Knowledge of the Organic Laws—The Diversity of Mankind explained by these Laws—Society divided into Four Classes, but considered only as One

Page

Species—Causes of Moral and Intellectual Degradation, illustrated by a Case—The natural Means of improving the Human Race, illustrated by two interesting Cases—The direct Effects of Changes in Character traced to the Brain; illustrated by an Anecdote of a Hottentot, related by Dr. Philip of Cape Town—Concluding Remarks 205

CHAPTER XII.

On the Means of cultivating the Intellectual Faculties according to the Organic and Phrenomatic Laws—Curious Fact of the Mental Process of the Deaf and Dumb—The Object of Intellectual Education two-fold,—to give an elevated Tone to the Moral and Religious Sentiments, and to promote Rational Enjoyment and Public Utility—Remarks on the necessity of modifying the Principles of Tuition—How Precocious Mental Powers should be treated—What constitutes Genius—The Injury of over-exciting the Faculties—How to prevent Disappointments in the early Promises of Genius—The natural Order of the Perceptive Faculties explained: the use of this Knowledge in practical Education—The Periods of Tuition divided into Four Stages; Three of these, extending to the 12th or 13th year, discussed—Means of teaching a Language—The Difference between Knowledge and Learning—Concluding Observations on partially cultivating the Perceptive Faculties 219

CHAPTER XIII.

Fourth Stage of Intellectual Education, embracing a Period from the Age of Twelve or Thirteen to the Eighteenth Year—This Period determines the Usefulness or Depravity of the future Man—How to treat Youth at the Age of Puberty—The Advantage of having stored the Mind of Youth with Knowledge, and gained his Confidence—The Means of using the Enthusiasm of Youth to advance him in Morality and Intelligence—The Necessity of Relaxation: Science a Means of Instruction and Relaxation: the Wonders of the Microscope given as an Example—Possibility of applying Dramatic Representations for the Illustration of History—The Philosophy of Shakespeare's Works, and his correct Knowledge of Human Motives—Causes for the present vitiated Tastes for vulgar Pageants, Cards, &c.—A Knowledge of the innate Faculties of Man should be communicated to Youth, in order that he may become acquainted with his various Duties—On

Page

the Study of the Sciences, as part of a System of a National Education—The Creator, in every Part of the visible World, has anticipated the Inventions of Men, and suggested Models for Imitation 251

CHAPTER XIV.

Practical Reflections—The Reason why various Systems have failed, owing to a partial Application of true Principles—Objections against educating all Classes refuted—Objections to Mechanics' Institutions, particularly those drawn from the Superficiality of the Knowledge of the Members, answered—Recapitulation of the Advantages of a systematic Plan for Moral and Intellectual Education, not suited to any particular Country, but capable of universal Application—Concluding Remarks 282

Explanation of Terms strictly technical, or rendered so by being used in a particular sense in this Work..... 297

MENTAL CULTURE.

"The volume of nature is the book of knowledge; and he becomes most wise, who makes the most judicious selection." GOLDSMITH.

WHEN a man ventures to enquire into the origin and progress of society, he is imperceptibly drawn into certain considerations as to the causes of moral and political error, and the intellectual aberrations which have hitherto rendered human institutions so very mutable. And, unless he commence dispassionately, and with some preknowledge of the *philosophy of mind*, his views will be too much obscured by early prejudices, and his conclusions will partake of fanciful conjecture, instead of being conformable to actual fact; and when once *reality* gives way to imagination, truth is sure to be lost amidst the mazes of mere metaphysical speculation. It is, therefore, our intention, in the succeeding pages, to submit only such opinions as are founded on a positive knowledge of man, and of the *physical, organic, moral,* and *intellectual* laws on which his being is dependant; and we shall endeavour to prove that the inconsistencies in all the common modes of education, the vicissitudes of all human institutions, and the consequent failure of their anticipated results, are ascribable to the fact that their framers

and promoters have been ignorant of the number of the mental faculties, of their relative importance, and of the means of training them to produce the greatest possible good to the greatest number.

The records of antiquity will avail us but little in our enquiry,* as the origin of society is too much obscured with mysterious legends by the poetical historians of the Greeks and Romans; and we can only infer the actual condition of mankind in the earliest periods of human history from the fact, that arts and sciences have been ages in progressing towards a state of comparative refinement.

It should also be remembered that in too many instances the gifted beings, to whom we have been indebted for every improvement, have, instead of receiving honour and rewards for their discoveries, been either neglected by their contemporaries or regarded by them with the most narrow-minded prejudice, and sometimes treated with the bitterest persecution. The least reflection must convince us that these circumstances have had a tendency to retard the advancement of knowledge, by damping the patriotic ardour and checking the growth of intelligence in many an aspirant for fame, who has been deterred from persevering in his solitary and unequal struggle against the selfishness and cupidity of power, on the one hand, and the passions and ignorance of an unthinking multitude, on the other.

If these observations are correct in reference to those individuals who have distinguished themselves as either inventors or improvers in the art of agriculture and the

* In the succeeding pages we intend to confine ourselves to a philosophical investigation of the principles of human nature, as derivable from the zoological rank of man, and the natural history of the mind.

mechanical sciences, how much more cogent they appear when we examine the history of literature and moral philosophy! In these records we find that any innovation, however good and useful, invariably excited a frightful host of opponents, all influenced by selfishness, and tenacious of their own cobweb fame; and such persons, disguising their real motives by the unworthy pretence of fearing the *bad consequences* of new opinions, have often, for a time, retained a flimsy reputation at the expense of their integrity and by the sacrifice of truth. That this was the case in what are called the "dark ages," there are many sad instances to prove; and modern experience shows that these disgraceful examples are still not without followers, a circumstance only to be explained by the fact, that the passions of men, being the emanations of certain fundamental powers, produce similar results, however modified by time and circumstances, and can only be regarded, in their *apparent* varieties, as different phases of the same innate feelings. We certainly might have been led to expect different consequences, had these feelings been adventitious, or had they originated from accidental circumstances: we might have expected that in a highly civilized state, where the minds of men are enlightened by cultivation, they would not evince that antipathy to novel opinions in morals, philosophy, and literature, which so conspicuously manifested itself in the earlier periods of society; that, having felt the benefit of science, their minds would be less impervious to the rays of truth; and that, whilst they entertained every proposed improvement with proper precaution, they would, at the same time, be ready to enquire into the *real* merits of the new opinions with candour and intelligence, particularly if it appeared evident that those opinions directly tended to the advance-

ment of the moral condition of the human race. Then how lamentable it is to be obliged to state, that, in spite of all experience, the errors of the *gothic age* still dim the mental vision of the luminaries of the present time, who shrink appalled when contemplating changes of opinion, however enlightened, and who seem to prefer their own "darkness visible" to the splendid brightness of pure and rational philosophy,—a truth easily demonstrated by the manner with which the discovery of Gall was received! In thus censuring the intellectual imbecility and want of integrity in those who have influenced public opinion, my only object is to caution candid men from falling into the same error; to urge upon them the necessity of acting more consistently when they are called upon to judge of the value and usefulness of any new subject; and, at all events, not to evince so utter a want of principle as to pronounce a verdict upon any new system (as, for instance, that of Phrenology) before they have thoroughly examined its merits. What should we say of an ignorant rustic, who, unacquainted with the laws of mechanical or natural philosophy, should dogmatically assert, "that it was impossible to measure the earth, or weigh the air," &c.? We should deem his egotism commensurate with his stupidity. Now this, in effect, is the conduct of the *learned* of the present day in reference to the science of Phrenology; they give a verdict against it without examination, and in perfect ignorance of the mass of evidence on which it has been founded. It is some consolation for us to state, that although this charge is but too true with regard to the greater portion of those who would fain pass for enlightened philosophers, yet there are many exceptions, and it is to such noble exceptions we can trace the reception of truth in all ages. The few who thus venture to receive

knowledge, may suffer persecution, but time consecrates their names; and even if those names be forgotten, still they are tacitly honoured by posterity, whenever the force of truth places their adopted notions on the solid foundation of public opinion. Had there never existed men who preferred the mental pleasure of *real* knowledge to the temporary gratification of an ephemeral fame, society would have remained in its original state of barbarism, without the comforts of civilized society, or the enjoyment of that delightful relaxation of the intellectual faculties now experienced by those who duly cultivate their mental powers; and it should never be forgotten, that for all these blessings we are indebted to a few noble beings who have graced every age, *and who breathed a purer moral atmosphere* than the thoughtless or interested mob around them! For, it is mere sophistry to talk in praise of a "state of nature," which state, if interpreted by common sense, means, an existence very little removed from that of the highest order of the brute creation; and can this be said to be better than one wherein the noblest faculties of man are improved? It may well suit the dark policy of some persons to recommend the *blessings of ignorance;* but a brief comparison between the "child of nature" and the cultivated man, will demonstrate the great advantages enjoyed by the latter. Nothing but a wish to delude and to enslave his fellow-creatures could induce any man to oppose the intellectual improvement of the human race, whose moral regeneration will then only be realized, when man shall have his moral and religious sentiments and his reflective faculties duly and early cultivated, and when it shall be deemed necessary to instruct youth in the various arts of civilized life, and in the sciences, but more particularly in the profound science of human nature.—Let us shew the consequences of not

educating men, by contrasting the precarious existence of the savage with that of a civilized being. The characteristic traits of the untaught savage are most of them of a selfish kind,—pride, cunning, vanity, cruelty, and a cupidity which delights in present gratification, and seems reckless of the future. These *abuses* of some of our innate feelings are the sole motives of all his actions: and rarely, if ever, are these propensities restrained by moral considerations, or directed by the friendly admonitions of reason: he is the creature of impulsive passions, which urge him to act blindly and immediately, without regarding consequences. In this manner the savage spends his life between powerful excitements and an abject listlessness. He consumes the precarious plunder of the day, without bestowing a thought on the morrow: sometimes feeding with keen appetite even to repletion, and at other times pining in sullen inanition from scarcity; and all this springs from his ignorance and improvidence. The barbarian rarely cultivates the land, or lays up a store for the period of scarcity: and thus, like a predatory animal when driven by hunger and the fear of starvation, he will steal or murder to obtain provision. His knowledge of the arts is more like instinct than the suggestion of the intellect, being limited to the building of a rude hut, preparing skins for clothing of the simplest kind, shaping the deadly club and other uncouth instruments of defence, and moulding utensils in clay to contain his food; yet has this state of mental degradation and gloom been eulogized in the fanciful dreams of poetry and romance! The morality of the savage consists in self-preservation; and hence, with him, "might is right;" and, being unrestrained by the natural or social laws, he is continually liable to receive a more than adequate balance of misery and suffering, the never-failing conse-

quence, in such a case, of the divine law of reciprocity. The savage, therefore, is unhappy as well as ignorant, and his unhappiness is still further increased by the operation of ignorance upon his religious sentiments, which, under that blighting influence, necessarily degenerate into abject superstition. And how should it be otherwise with a mind as dark and dreary as the wild heath he inhabits, deformed and irregular like the abrupt and angular points of the rugged mountain scenery in which he hunts for prey, unacquainted with even the most ordinary phenomena, and unable to conceive by what laws they are regulated? In such a mind religion is almost wholly compounded of the marvellous sentiment, which becomes morbid through the excessive excitement to which it is constantly exposed by its natural allies, timidity and ignorance. Every unexpected circumstance that is an object of sight, such as a flash of lightning or an eclipse, or any other visible phenomenon, will raise in the savage emotions of terror; and if the cause of his fear be invisible, that emotion in him becomes still more intensely slavish, and places him at the mercy of his weaker enemies. Under the dominant influence of the same cause, his imagination is peopled with good and evil spirits, to whose agency he refers every occurrence; so that a sudden death, a hurricane, the heaving of the ground in an earthquake, or the rolling of the distant thunder, are to this uninstructed creature's mind objects of adoration to which he prostrates himself, not from love, but in pusillanimous and superstitious terror. If we turn our attention to him in his social relations, we shall perceive that in them his conduct is regulated by the most inveterate selfishness. Amongst savages, indeed, the civil compact is rather to be compared to the accidental union of gregarious animals, than to an association of *moral agents* desirous of being mutually beneficial to

each other. Their verbal contracts are made to enable each individual to gratify with greater security a propensity to steal, or to inflict a sanguinary revenge on a real or supposed enemy; and accordingly, whether the excursion has been for plunder or for war, no sooner is the hour of danger past, than the savage displays his unmollified selfishness in taking exclusive care of himself, and in disregarding the wants or sufferings of his fellows, and even his relations. Those that are acquainted with the elements of human nature will recognise in this sketch the operation of the animal propensities, unrestrained by morality and unrefined by an enlightened intelligence.

Education conducted on true principles is the only means of making such miserable specimens of humanity rare. There was a time when this picture of savage life correctly represented the now cultivated and intelligent inhabitants of this country: nay, our ancestors were even more brutalized than savages in general, by the sanguinary sacrifices of druidical worship. We ought, therefore, when we look around us and contemplate the various blessings of civilization, not only to feel a moral satisfaction at the prospect, but show our gratitude by endeavouring to dispense knowledge to all the races of mankind; and, if we do this with that zeal and perseverance which so important an object demands, we may feel assured that time will realize our warmest anticipations for the *moral* and *intellectual* redemption of even our darkest-skinned brethren.

In seeking to promote the improvement of our fellow-creatures, we ought to take nature for our guide, and make our plans of education conformable to her laws. One of those laws is, that the bodily and mental faculties are *gradually* developed; another, that they require to be *exercised*, as a condition for their health and activity.

The former is an obvious truism; and every discerning observer may deduce a negative verification of the latter law from the equally obvious fact, that, whenever either individuals or nations neglect their intellectual and moral culture, they rapidly degenerate,—a fact, of which the sad truth is too frequently apparent in private life, and which has received some melancholy illustrations, in both ancient and modern times, in the history of the whole species, and, especially, in that of the ancient Greeks and Egyptians. The reason is obvious; for, *the brain*, which is the seat of all the mental faculties,—the feelings, and sentiments, as well as the intellectual powers, both percipient and reflective,—is subject to the same laws as the other parts of the nervous system; and we all know that the external senses, for example, acquire a more intense sensibility in proportion as they are exercised: thus, in the savage, they are more acute than in the civilized being, because the dangers by which the former is surrounded, and the difficulty he experiences in procuring a precarious supply of food, tend to excite the various senses, and especially those of seeing and of hearing, from a very early period. On the contrary, contrast these same faculties in the savage with those of persons that work in mines, and it will be found that the sight, for instance, is in the latter very imperfectly manifested. In like manner, on the other hand, the *moral* and *intellectual* faculties being more exercised in civilized man, they become more active and vigorous than in the barbarian, in whom these faculties are almost entirely neglected. We shall, therefore, at the outset, enter into a description of the general and particular functions of the brain, and in this way bring forward the *data* on which we have founded our practical views of Moral and Intellectual Education.

CHAPTER I.

THE STRUCTURE AND USES OF THE BRAIN.

We venture to assert, that as soon as men shall comprehend *the laws of mind*, and the means by which the organic instruments may be improved, it will become evident to them that their mental faculties are susceptible of much greater cultivation than is now generally supposed. *This knowledge is only to be obtained by a physiological investigation of the functions of the brain*, through which compound organ the mind manifests its various powers. The brain* is proved to be a compound of many parts, as may be shown by its anatomy, and as might be inferred from its numerous functions, animal, moral, and intellectual. In man, its structure is rather complex, but gradually becomes less so as we descend the scale of intelligence through the several orders of mammalia and amphibia. This progressive increase of parts in the brains of different animals, according to the number and kind of their instincts, affords presumptive evidence that this organ cannot be regarded as an unit; and so accu-

* We call the whole mass that fills the skull, the brain. But anatomists have divided it into three parts, besides the nerves which originate at its base. First, the *medulla oblongata*, which joins the spinal marrow at the part where the vertebral column enters the skull. Second, the *cerebellum*, or little brain, situated at the back part and base of the skull, and which is united to the medulla oblongata. Third, the *cerebrum*, or brain proper, extending from above the cerebellum to the roots of the nose and eyebrows.

rate is the result to be obtained by the application of this evidence, that it would not be difficult to form a scale of the comparative intelligence of various animals from an attentive inspection of their brains, marking the different degrees from the simplest rudiment in worms up to the complicated and beautiful machine which constitutes the brain of man, who manifests faculties moral, religious, percipient, and reflective, which are peculiar to himself. Nor can this constant correspondence between the simplicity or complexity of an organ and the more or less compound nature of its uses be deemed adventitious or merely coincident, it being an established law of animal life *that neither man nor animals can exercise a function without an organic instrument.*

With this truth for our guide, we may proceed to discuss other phenomena of a general nature, as we can in this manner make a necessary distinction between the organ and its uses, and the *principle* which is essential to give the vital action.

The brain at birth is soft and pulpy, but it gradually improves in structure, and becomes quite matured in middle life. In old age it again undergoes a change; the fulness of its parts is considerably less, and there is a less susceptibility to excitement. Observation also enables us to state, that there are corresponding changes of the mental phenomena, coincident with these periodical alterations in the organ. In infancy there is scarcely exhibited either moral or intellectual perception; in childhood the faculties manifest more activity, and still more vivacity in youth; in manhood all the mental powers acquire their greatest vigour; but in old age the mellowed faculties of our autumnal period begin to feel the effect of declining energy, and as the chilling days of mortal winter approach, our perceptions become more

and more enfeebled, until we finally sink into the grave! In taking such a view of mortal existence, (confirmed by experience,) will any one be guilty of the flagrant folly of charging us with advocating *materialism?* We observe in this arrangement the goodness of the Creator, and see in it, as in all his other works, both harmony and wisdom. For, did man, at the time of his birth, enjoy his faculties in all the perfection of manhood, the innocence of infancy, and the sympathies and affections which grow up between the child and parent during the period of moral and intellectual tuition, would have been denied us; and, if no change occurred in our latter days, grey hairs would come upon us in the midst of the follies and vanities of life, and we should drop into the grave without being prepared for the summons to be hourly expected in declining age.

But every thing, both as regards the external world and the economy of man, bears indelible evidence of infinite wisdom. As the greatest exertion is required during the meridian of life, the faculties are then most vivid and active; had this state however been prolonged to old age, man would have forgotten the higher and nobler destiny of his nature. In the present order of our mental seasons all is harmony: when the body becomes weak and decrepid, the passions and feelings have lost much of their wonted energy, the percipient faculties are intractable, whilst the moral and religious sentiments are unclouded by sensual desires; and the old man is thus permitted to view "eternity" as a bright and cheering prospect, or calmly to resign himself to rest, like the traveller who after a long summer-day's walk forgets both the pleasures and the fatigues of his past journey, and only wishes to compose his weary limbs and to close his eyes in sleep.

If we reject this *physiological* solution, we must inevitably be driven to the absurd supposition, *that the brain is the source of mental phenomena, rather than the instrument by which mind operates.* In this case, there would be an utter impossibility to account for the marked changes that occur between infancy and old age, and, there being no alternative, we should be obliged to contend that the *mind* itself is subject to these changes, and in the strictest sense of the word should become materialists. But, to the philosopher who traces effects to causes by the inductive process, the facts on which a contrary opinion is tenable, amount almost to positive demonstration. The mind, as a distinct principle, appears to him the same at the time when it first animated the embryo as it does in every subsequent stage of existence: it does not undergo changes corresponding to the periods of infancy, youth, manhood, and old age; but the organic instrument (the brain) is subject to these mutations, in the same manner as the sight becomes dim, and the limbs lose their mobility and become sluggish, under the operation of the same physical law. The change in the latter instances produces no essential alteration in the sentient principle: it is only the *nerves* and *muscles* themselves that have undergone some organic modification.

The importance of the brain, as the focus of all sensation, might be inferred from the phenomena before cited, and further from the manner in which it is secured from either internal or external injury.

The brain is enclosed in three soft coverings (membranes), the outermost one (dura mater) being very dense, and considerably thicker than the other two membranes, it being so contrived as to have a canal (longitudinal sinus) formed of its substance, which canal

is for the purpose of carrying off the waste blood into the jugular veins, and, through the latter organs, to the heart, to be again vitalized. Besides this careful provision, the brain is inclosed in a strong ivory-like box (skull), a cabinet of the most curious workmanship, and of the very best form for combining strength with lightness and security. Nor are these all the proofs it exhibits of divine care and wisdom: the skull is admirably adapted to the changes which the *brain* is liable to undergo from infancy to maturity. At birth, the bones of the skull are soft and yielding, and united together by an elastic substance; so that during infancy, the bones are not dove-tailed together, that is to say, united by sutures, as in after-life, by which contrivance the brain is protected at the same time that its growth is not retarded, a circumstance which must have taken place, had the bones of the head been as rigid at birth as in manhood. But, in the active period of life, when every individual is more liable to injury from accidents, the bones are harder and more dense, and united by the inimitable sutures; and thus, when the necessity for strength is so indispensable, the profound Architect of all things has pre-arranged these changes of bone, by which is acquired greater power of resisting injuries.

If, however, the substance of the skull had been solid and of a homogeneous structure, there would have been a necessity for its remaining soft, otherwise it would have cracked when any hard substance came in contact with it, a liability which is now obviated by the following most interesting contrivance. The skull is composed, [illegible] hard, dense bone; next to [illegible] and when there is an [illegible] what, in fact, the

rm thickness
culties have
the bone
sult may be
e, when
ergy; and
wers may
ses there
ull.
The *b*
iry envelope
the nobler
ertebral
veral
xposed
are has
s various
nother
overcome.
ts of
ing the
onstituting

is for the purpose of carrying off the waste blood into the jugular veins, and, through the latter organs, to the heart, to be again vitalized. Besides this careful provision, the brain is inclosed in a strong ivory-like box (skull), a cabinet of the most curious workmanship, and of the very best form for combining strength with lightness and security. Nor are these all the proofs it exhibits of divine care and wisdom: the skull is admirably adapted to the changes which the *brain* is liable to undergo from infancy to maturity. At birth, the bones of the skull are soft and yielding, and united together by an elastic substance; so that during infancy, the bones are not dove-tailed together, that is to say, united by sutures, as in after-life, by which contrivance the brain is protected at the same time that its growth is not retarded, a circumstance which must have taken place, had the bones of the head been as rigid at birth as in manhood. But, in the active period of life, when every individual is more liable to injury from accidents, the bones are harder and more dense, and united by the inimitable sutures; and thus, when the necessity for strength is so indispensable, the profound Architect of all things has pre-arranged these changes of bone, by which is acquired greater power of resisting injuries.

If, however, the substance of the skull had been solid and of a homogeneous structure, there would have been a necessity for its remaining soft, otherwise it would have cracked when any hard substance came in contact with it, a liability which is now obviated by the following most interesting contrivance. The skull is composed, first, of an external layer of hard, dense bone; next to this is a soft and spongy substance, and then there is an internal layer similar to the first; so that, in fact, the

inner and outer laminæ of bone* have a soft *cushion* interposed between them, to prevent accidental vibrations from affecting in any material degree either the brain or the skull itself.

In the anatomy of an individual who has died in manhood, after well exercising all his mental faculties, the bones of the skull, when sawed through, present a uniform thickness. But, in other cases, where the mental faculties have been only partially cultivated, some part of the bone appears thicker than other parts, and this result may be the effect of neglected education, or of old age, when some of the faculties naturally lose their energy; and of insanity, in which many of the mental powers may be torpid from diseased action. In all such cases there is a want of parallelism in the tables of the skull.

The *brain* is further protected by having a strong hairy envelope which covers the skull; and, as the head is the noblest part of man, it is placed on a bony column (vertebral spine), which is articulated, and adapted to several motions; and thus, whilst the head is so much exposed to danger by its elevated position, the greatest care has been taken to guard the brain from injury by its various and curious coverings. But there is also another instance of *prospective wisdom*, which must not be overlooked. The brain is composed of two distinct sets of instruments, called hemispheres, each hemisphere being the seat of corresponding mental faculties, and constituting double organs, like the nerves of the senses; so that in case of accident destroying the cerebral substance of one entire hemisphere, the other side could

* Technically speaking, "the inner and outer tables," which are not always of an uniform thickness: hence their want of parallelism is spoken of.

act, and hence the innate faculties would not be entirely disturbed.

The hemispheres are united together in the middle of the head, so that if an incision were made by an instrument, commencing between the eyes and carrying the hand vertically across the head to the middle of the neck, we should divide the brain into its two natural parts.

Each hemisphere has *three* lateral divisions called lobes, and they are named, from their relative situations, the anterior, middle, and posterior lobes. Each lobe is made up of masses of fibres which are formed into separate bundles, called convolutions, which are folded up in such a manner that they present a great surface, but are so disposed that each convolution occupies the smallest possible space.

Before, however, we enter upon a statement of our view of the uses or functions of these convolutions, we will explain certain laws called *temperaments*, which, as will be manifest from the most superficial examination, give more or less activity to the mental faculties themselves.

CHAPTER II.

THE TEMPERAMENTS, AND THEIR INFLUENCE ON SIZE.

The preceding remarks on the general anatomy of the brain lead us to consider two important facts: first, that the difference in the size of the *posterior, middle,* and *anterior* lobes, and the very marked difference in the relative proportions of the convolutions composing the lobes, in every individual, will account for the great diversity of moral and intellectual capacity, through which each person becomes individualized. This proposition is incontrovertible, as we shall subsequently prove in our analysis of the organs, and of the particular functions they manifest. Secondly, it is important to guard the tyro in physiology against a very common, but erroneous conclusion, when examining the relative proportions of a head or a skull, *that the size alone* (whether of the whole brain or of the separate organs) *is the only condition of functional power.* Phrenologists speak of the size of the head as indicating relative power, and of single extreme faculties after the same rule: but in this statement we do not consider that *absolute size* of the brain is the only necessary condition of power, because experience proves that some brains are coarser than others. In the same manner, and for the same reason, it does not follow that a large muscular man should invariably have a relative intensity of mus-

cular strength, for the muscles may be flabby and not compact: but in neither case ought we to conclude these examples to be exceptions to an universal law, *that size is the standard of power*. For it is demonstrable that, both as regards the brain and nervous system, and the muscular system, if there is a *healthy* condition, and the temperament is naturally active, then the size of the organs in each system will be the measure of their *absolute power*.

The way to judge of the truth of these remarks (in reference to the brain) is not by hasty and premature observations on character, "for in no science or art is perfection attained without incessant application, and patient investigation;" much less can the profoundest of all knowledge, that of human nature, be acquired by reading a manual, or by attending a course of lectures. To proceed on a certain and rational plan, the intelligent student should in the first instance satisfy his mind upon the great fundamental principle of the science; viz. that there are palpable differences to be observed in the configuration of heads, corresponding to the marked diversity in human character. Let him particularly pay attention to any extreme developement of a single faculty, and he will perceive by its expressive *natural language* a powerful physiognomical indication of its function, whether it is self-esteem (pride), or benevolence, or any other faculty. When he has in this manner become convinced both of general and particular views, he should carefully mark the physiognomical contour of the person he is *silently* scanning;* whether the body is thin, spare, and active; or whether the chest is broad and capacious, accompanied with great general

* Sir George Mackenzie judiciously recommends the necessity of studying Phrenology in an unobtrusive manner.

muscularity; or whether the subject is heavy, fat, and bloated; and he will find that the *mental faculties* will be influenced in their greater or less activity by these different states of the body; and it is these states which we call "the temperaments." Dr. Spurzheim speaks of four, and which are similar to those spoken of by physiologists from the days of Hippocrates: these are, the NERVOUS, the BILIOUS, the SANGUINEOUS, and the LYMPHATIC; and their external indications are well defined.

The NERVOUS temperament gives that kind of irritability which induces a tendency to be easily excited: "the mind banquets and the body pines;" and this renders an individual like Cassius, as the immortal Shakespeare describes him, with "his lean and hungry look:" and the same profound observer notices of men of this temperament, that "*they think too much;*" and, he might have added, *feel too much.* If the feelings or propensities naturally predominate (and with this *nervous*, irritable susceptibility they are liable to become boisterous and impetuous), they are continually hurrying an individual to acts of the most desperate and violent kinds, under the tempestuous gusts of sensual passions: if the moral and religious sentiments are large in proportion to the latter class of faculties, they impress their ennobling influence, and urge the gifted being to deeds generous and disinterested, and render him under all circumstances "a law unto himself:" and should the intellectual faculties predominate, there is manifested a quickness of perception, and a general vividness of ideas, which not unfrequently betray themselves by a hurried and rapid speech, as if the person aimed at giving verbal representations, within the same short period of time that the vivid coruscations of thought occupy.

We thus have marked the manner in which this tem-

perament affects either of the three classes of our innate powers; viz. the feelings, moral sentiments, and reflective faculties; and it follows as a matter of course, that a similar influence would be conspicuous where any single faculty existed in extreme, since it would indicate greater energy than the neighbouring organs.

When the head is very small (but accompanied with the nervous temperament), there is great general activity, but at the same time, we feel that there is a mental feebleness. On the contrary, if the head be very large, then, with the same temperament, there is a corresponding superiority: the individual is impressively profound, driving all before him by the strength and energy of his genius, sometimes like a hurricane carrying desolation whenever he appears, or, as the glorious sun, enlightening and blessing mankind with the rays emanating from his moral and intellectual attributes: such a man was the great Lord Chatham.

The BILIOUS temperament also disposes to great mental activity, and is known by the dark, oily, olive-coloured skin (bilious complexion), and dark hair and eyes, but is accompanied with less energy than the nervous temperament.

The SANGUINEOUS temperament is accompanied with a *broad chest* (thorax) and great muscularity, which gives a tendency to athletic and gymnastic exercises, and hence disposes to great bodily exertion: the features are florid, and the body robust and healthy, but the brain is not so vividly affected as either of the last-mentioned temperaments.

The LYMPHATIC temperament does not dispose to much mental exercise, but then it compensates for this in some measure, by giving a tendency for corporeal assimilation; the *body* is well nourished, and is generally

large and protuberant—the *aldermanic abdomen!* The face is pale and livid, the motions of the body sluggish, and the mind's machinery moves slowly and tardily: in short, it is the lowest degree of functional activity. But there is rarely, if ever, a genuine lymphatic: sometimes the combination is thus—lymphatic-nervous; lymphatic-sanguineous; &c.

With even these preparatory considerations we may proceed safely on the path of our enquiry; viz. to prove that the diversity in human temper, disposition, and intelligence is referable to certain laws: *that no action takes place without a motive;* and that no motive can be attributed to that unphilosophical non-entity, chance, it being demonstrable that all varieties of mind depend on the mental instrument (the brain), which indicates more or less positive power according to the great or small size of the whole brain, or a relative power from extremes in its separate parts; but in both cases subject to great modification in the energy of its functions by the constitutional temperaments.

Finally, there is another primary condition to be attended to, namely, that unless all the faculties receive proper cultivation, there will be great defects in the manifestation of their general functions, or excessive action from the unrestrained and undirected excitement of some particular feelings; for, like weeds, they may grow with a rank luxuriance, and prove more injurious than useful. If we ignorantly expect that, because a brain is large, it therefore requires no education, we are mistaken. It is very true, that when the brain is accompanied with a good temperament, and nearly equally balanced in its faculties, or possessed of a greater than ordinary portion of intellectuality, its better energies

may be sometimes roused in spite of even the most unfavourable circumstances: but such cases are rare and almost isolated, forming those apparent exceptions to a general law which we call genius. It ought to be our universal rule to observe the *laws of mind* and attend to them, if we wish to develope all the faculties; taking care neither to over-exercise the mental faculties, nor allow them too little action: in the first instance we exhaust the organic instruments before they are matured, and, in the last, we induce inactivity and torpor. To attain certain ends we must use the means provided by the Creator; and greatly responsible is that parent or tutor, who wilfully neglects to obtain the necessary information.

Experience affirms, that the *cerebral* organs are subject to the same conditions as the external senses and the muscular system: bind up the muscles of the arm from infancy, and there would be neither strength nor motion in it: shut up a child in the dark, or bandage the eyes for many years, and it would be blind. So it is with the mind: suffer the poor child to run about the streets and be a witness of crime and vice; neglect to give the proper stimuli to his moral and religious sentiments; abandon his perceptive faculties to the noxious influence of the dram-shop, the prison, or the abodes of craft and cunning, where, instead of being nourished with true and useful knowledge, he can only become acquainted with trickery and chicanery; and, lastly, let those noblest attributes, the *reflective faculties* (reason), be left to exercise themselves in the invention of mere schemes of dishonesty, and then ask whether, after being thus schooled in vice, the poor sinning creature in whom all the Creator's laws have been violated, does not more demand our deepest sympathy, than our

reprehension? Let me then urge the true friends of man to study those laws, and we may anticipate a regenerated state of society, in which, instead of crime darkening the moral atmosphere, all will be harmonious and serene.

CHAPTER III.

EXPLANATION OF THE FUNCTIONS OF THE ORGANS COMPOSING THE BRAIN.

HAD one fact impressed itself on the mind of observers before the days of the illustrious Gall, viz., that in the animal economy *no operation can take place without an organ*, and that no single organ (whether nerve, gland, &c.) performs a double function, it would have been long since demonstrated that the various feelings, sentiments, and intellectual qualities of the mind could not be manifested in this life without *material* instruments: those that think otherwise should be prepared to prove that we might have seen without an eye, or possessed any other sense without its proper organ. The evidence for the plurality of the mental organs must be admitted to be both physiological and philosophical, and we shall now enter into a brief history of them, being confident that this discovery will one day be appreciated as the greatest boon conferred by Observation and Science on the human race.

Particular Uses (functions) of the Parts of the Brain.

The faculties of man are divided into three classes. The first is that of the *feelings* or *propensities* (the *genus* Affective Faculties of Spurzheim), which we have in common with other animals. The second is that of the

moral and religious sentiments, which are, strictly speaking, *human attributes.* The third class is that of the intellectual faculties. We shall explain these several faculties in the order above enumerated, and in this explanation our aim will be to give information, and not to make a verbal display.

FEELINGS.

Amativeness (cerebellum).

This organ (Physical Love) is situated at the base of the skull, and its breadth is indicated by drawing a line from one bony protuberance behind the ear (mastoid process) to the other on the opposite side, whilst its depth may be ascertained by the bony knob at the back of the head (occipital spine), and the greater or less thickness of the muscles of the neck. Innumerable facts prove the function of the cerebellum to be correctly ascertained.

Philoprogenitiveness (Parental Instinct).

This organ occupies the lower portion of the posterior lobes of the cerebrum (brain), and is generally larger in women than in men; and hence by it the head of the female may be distinguished, as it gives a drooping appearance to the back of the skull when viewed laterally, so that it is possible, as a general rule, to discriminate the crania (skulls) of females from those of males.

The LOVE OF OFFSPRING seems to be a fundamental feeling, and it is experienced in greater or less intensity in proportion to the size of the organ. It is a very strong instinct in animals, many of them exercising most prodigious labours, and devoting their whole lives, merely to prepare for the preservation of their offspring: this is the case with most of the insect tribes; and all classes,

both of carnivora and herbivora, manifest it in different degrees, and frequently the most savage display it in the greatest intensity. Its gratification seems to afford extreme pleasure, and that which gives it painful sensations tends to rouse other faculties into activitity: for example, the swan, when sitting on her eggs, is usually guarded by her faithful mate, who is sure to dart with fury at an intruder, should he approach the object of his paternal solicitude. Many other examples might be cited.

In our own species, who does not recognize a similar instinct? The anxious mother, when her little offspring is in danger, feels an ineffable agony; and who has not observed with delight her amiable solicitude in watching at the sick couch of her child without a murmur—nay, apparently dissatisfied if another takes her place? for, she derives a pleasure from her maternal cares, a pleasure of a peculiar kind, a sensation *sui generis;* one that is unlike any other of our attachments, whether of sex, friends, or country. It is not the same as benevolence, being manifested by the savage, by the cold-blooded murderer, and by animals of the most ferocious kind; and yet, as all our *feelings* are modified by the moral qualities, it is possible that in the virtuous and cultivated this parental instinct is experienced in a more refined degree.

Inhabitiveness (Instinctive Love of Place.)*

The cerebral part now to be described is situated above the last organ, and occupies also the middle line of the back part of the head. The peculiar feeling of attach-

* Our object is not to make long descriptions of the organs, nor do we intend to enter into the occasional difference to be found among even the most talented advocates of the science; but merely to give the views we have adopted.

ment we have for our *native place* is induced by this instinct, and the *love of country* seems to be merely a modification of it. The general possession of this feeling evinces another proof of the wisdom of the Creator, who evidently intended by this provision, that the various parts of the earth should be inhabited. It is this feeling which induces those born under the intense heat of a tropical sun, to part reluctantly from their parched-up plains, even to exchange them for more fertile countries. The Arab wandering in the arid desert seems powerfully attached to it; and although he suffers from the scantiness of its fruits, and numerous other privations, there cannot be a doubt that to him there are charms there which overbalance the precariousness of his supplies, and compensate for the general sterility. And the poor shivering Icelander, with an atmosphere bleak and sullen, and with the occasional scarcity caused by the poverty of the soil, derives pleasure even from such sources, and prefers his barren prospects and uncongenial climate to other countries more salubrious, and in which the earth yields its fruits almost spontaneously. It is obvious that without such a feeling the greater part of the world would have been an uninhabited desert, and not, as it now appears, the busy theatre of the numerous descendants of Adam, and the abode of vast multitudes of animals.

This feeling remains to the close of life: and some men then betray their attachment to place with greater energy under particular circumstances, as when they are absent in a foreign land and feel death making his approach. They then turn towards the scene of their birth; and although they experience certain associations which add to their mental gloom, yet to them it would be a source of consolation to be assured that their bones should be laid in

the hallowed tomb which contained their departed ancestors. The patriarch Jacob desiring to be buried in the sepulchre of Abraham is a well-known instance.

This instinct, when naturally strong, may become more intense from mere age, as the scenes of our childhood are then enhanced by distance and possess something of a magic charm in the picture which fancy gives them, and which warms the imagination with vivid ideas of home, even although some stray clouds of sorrow may shadow the prospect with the painful recollection, that many who enjoyed with us that soul-stirring scene are long since deposited in their last abode.

Adhesiveness (Affection, Love, &c.)

The organic instruments for this instinct are situated laterally, and superior to Philoprogenitiveness, occupying the convolutions on each side of it: hence, when these organs are large, the back of the head will be broad; and as *affection* is stronger in women than in men, their *crania* are more amply developed in this place. It is called *Adhesiveness*, because it gives us general attachment: for, to this feeling must be attributed friendship, esteem, and platonic love; and sometimes, when it is strongly experienced, it will exert itself in a species of affection for all things animate or inanimate, as, for example, for animals, plants, minerals, and every surrounding object of creative goodness.*

We often read of devoted *friendship* in criminals, who have sometimes been known to manifest attachment so great that they would suffer torture, nay, even commit

* It forms not part of our plan to enter into comparative Phrenology; but we cannot omit to observe of animals that have *Adhesiveness* large (as the Dog for example), how strongly they repay kindness by extraordinary devotedness.

suicide, rather than betray their companions. That men sunk almost below zero in the moral scale, should be capable of such friendship, must be a source of no small difficulty to the advocate of any system of philosophy, if the theory of the illustrious Gall be rejected; but admit an instinct of attachment, and that difficulty is easily removed. The organ may be large even in a low organization, and then the individual will feel a friendship, which, although active, will be little above that kind which is manifested by animals, very warm for a time, but liable to be extinguished by every gust of passion. How different is the friendship of the virtuous and moral! their attachment is first roused into energy by the noblest attributes of our nature, (the moral sentiments and intellect combined with Adhesiveness), and therefore remains the same in prosperity or adversity. It is a friendship of this kind which is capable of disinterested acts, which forsakes not its object either in sickness or in health, and which loses nothing of its intensity either with age or distance. It is this purer kind of friendship which is experienced by a virtuous woman, who brightens with the rays of her affections the domestic hearth, and throws a halo of serenity around her upon all occasions, rendering our joys more perfect, and soothing the trials and pains to which man in the turmoils of life is subject; and thus not only reconciling him to bear, but adding unspeakable charms to, that existence, which would have been insupportable without female society. The strongest proof of the innateness of this most valuable feeling is to be found by comparing its degrees of intensity in a large family, where it may be distinguished through the various grades, from almost absolute indifference up to an inordinate activity even of the most romantic kind.

Combativeness (Instinct of Courage).

That men differ in temper, was of course known to Gall; and this fact induced him to examine numerous individuals, in order to see whether there existed any cerebral difference. Without detailing the manner of his proceeding, we find that he decided that the *instinct of Courage* was innate, and that it enlarged the posterior angle of the parietal bones, behind the mastoid process, (just past the bone felt behind the ear),—a fact which is easily to be verified by comparing a courageous and a timid person at this part of the head: the contrast would convince even the most sceptical. Now this experiment having been repeated upon a vast number of individuals, and without a single exception to the rule, "that the courage is always in the ratio of size of the organ," (temperament of course being considered), what stronger evidence could be demanded? If such palpable facts be rejected, we must at once reject all scientific knowledge; for, the evidence of every other human science is of the same kind as that of the functions of the instruments of the cerebrum: all must be tried by the same test of experiment, and the inferences in all must be merely inductive.

In reference to the *instinct of Courage* we might still find further corroboration, by examining the heads of different nations; and, even though ignorant of their history, we could still draw up a scale of their comparative courage, merely by the size of this organ.

We are told that Pizarro, with a few Spaniards, conquered the kingdom of Montezuma; and it is a fact that the *crania* of the Peruvians have the organ of Combativeness small, whilst in the heads of the Spaniards it is large. This phrenological test is further established by a

similar comparison between the heads of the Mexicans and their conquerors.* On the other hand, we find that many of the natives who inhabit some of the Malacca Islands (the Caribbean Indians, for example) are notorious for their brutal courage, and their skulls form a striking contrast to those of the Lascars and Hindoos, both which people are proverbial for their timidity and cowardice.

The organ of Combativeness is sometimes excited to such a degree as to constitute insanity, and that too, even when the organ is not very large, in persons of a nervous temperament, particularly in those who have suffered many of the ills of life, and whose cup has been nearly filled with the bitter dregs of disappointments. Such persons indicate the festered condition of this instinct by their petulance and uncontrolled pugnacity. This instinct is susceptible of various *abused* manifestations, such as a quarrelsome and contradictious habit, and an abruptness in conversation, partaking in some manner of insolent dogmatism. In the well-organized individual it is nevertheless a feeling of great importance, infusing a *moral courage* which fits the possessor for the noblest acts, and urges him to make, if necessary, a sacrifice of personal ease, and even of life, in the cause of truth and virtue, from a stern sense of duty. Many bright examples might be cited of men who have unflinchingly faced persecution even unto death, because they fearlessly advocated the advancement of knowledge and the intellectual redemption of their fellow-creatures.

Destructiveness.

The organ whose function we shall now investigate, was discovered by Dr. Gall in the heads of murderers;

* There are many Mexican and Peruvian skulls (Aborigines) in the excellent Museum of the Edinburgh Phrenological Society.

and as it is probable that it was by instances of an extreme developement of the various organs in some persons, and their comparative deficiency in others, that our enlightened Philosopher was enabled to point out their particular functions, we ought to refrain from censuring with severity the error which he naturally fell into, of naming the organs of the propensities from their *abused* activity; and should only recollect with gratitude his prodigious labours, and the subsequent utility of his vast and profound discovery.

Every thinking being will deem it impossible that God should have given man an instinct to murder. But this crime, so revolting to humanity, has been committed in all ages; and every page of history records long and sanguinary wars waged, and but too many instances of the most cruel torture inflicted, for slight differences of opinion: not unfrequently have the defenceless mother and innocent babe been immolated either to appease the insatiate fury of a brutal soldiery, or to glut the hellish rites of a senseless superstition; and this species of murder has been of so wholesale a kind, that the heart sickens at the faintest reminiscence of the crimes of men acting under the fury of their low and selfish feelings.

To what then, we ask, are to be attributed the various *moral* aberrations of mankind? Is man a mere creature of accidental circumstances, or are not all his immoderate actions to be traced to *abuses* of his natural instincts? The answers to these questions must be contradictory, unless we determine to decide on the evidence of facts; and what, then, is the solution? Why, that man has various faculties which, if used according to his moral sensations, are not only essential to him, but so essential that he would have been an imperfect being without them; and although in all ages there have been some noble specimens of our species, it is but too true that

these examples have been greatly outnumbered by others of ferocity, revenge, murder, and various crimes degrading to humanity. From these general remarks we conclude, that man is endowed with an instinct to destroy, and shall submit many unanswerable considerations to prove, that in every instance in which this instinct degenerates into excesses, such as anger, fury, revenge, and their dreadful consequences,—murder and cruelty in all its shapes,—these excesses must be regarded as so many deviations from the proper function of this fundamental power.

With a view to unfold the philosophy of this instinct, we must examine the economy of the animal kingdom; and we shall be repaid with positive information on the subject. First, It is important to consider what specific difference there exists between animals which feed on grain, pulse, and herbs (herbivora), and those which devour other animals for their food (carnivora); and we shall soon perceive that they are strongly distinguished by the form of the brain and their general configuration. The herbivorous animals have teeth to cut (incisores), and others to grind the food (molares), a stomach peculiarly suited for the digestion of vegetable substances, and very imperfect instruments for defence: the latter being unnecessary to the greater number of this class, which browse or feed in quiet slothfulness. But the carnivorous class (birds excepted) are endowed with a masticatory apparatus evidently intended for tearing flesh, and with an alimentary canal fitted for assimilating it, and various weapons for offensive and defensive purposes. The brains of each class are equally well discriminated; and naturalists who will study comparative phrenology will be able to distinguish between the peaceful herbivorous animal, and the more courageous

and sanguinary feeder on flesh, by their respective heads, even if deprived of teeth and jaws: and our inference is, that the organ of Destructiveness is the seat of the innate carnivorous instinct,—an inference which is corroborated by the fact, that the size of this part of the brain is variously developed in different species according to their natural ferocity. Secondly, In examining the zoological rank of man, we find that his masticatory organs (teeth) are suited both to grind vegetable matter and to tear flesh, so that he holds a middle rank, and is called an omnivorous animal, particularly as we find the digestive organs in harmony with this decision; and when we look at the brain, we find there an organic instrument which stimulates him to *kill* for the sake of animal food, so essential to him. If he had not been intended to eat flesh, why has he teeth and a stomach for the purpose? And could he have procured it without an instinct to destroy? Hence the true function is obvious; and he who denies this to be the case, should be prepared with some strong reasons to prove that the *dental* and *pelvic* organs of man, being intermediate between the two great classes of animals, are merely an accidental occurrence, and that a murderer kills "*because he kills*," with other such unphilosophical jargon. That there are many animals which seem to delight in beholding the agony of a writhing victim, even when they have satiated themselves with food, is true;* that there are some which merely kill when driven by hunger; and that there are others which, although feeding on flesh, never kill their prey, is also well known;† so too, shall we find, in human society, similar instances recorded by the testimony of history. We read, that on the field

* Tiger, Polecat, and Wolf.

† Lammergyer, Vulture, and Carrion Crow.

of battle the murderous slaughter has been continued, and that *biped tigers*, deaf to the cries of the prostrate, have apparently derived even some pleasure from the bloody carnage, feeling neither pity for the sufferers, nor making an effort to mitigate their misery.

The Romans, witnessing the deadly conflicts of the gladiators, must have been brutalized from an active state of the destructive propensity; and those who luxuriate even in relations of such hellish spectacles, and who delight in beholding, in imagination, such sanguinary dramas, gratify this feeling unmollified by the higher sentiments.

Unless we admit the existence of an instinct of this kind acting with an animal energy, we must pause to account for instances of such human callousness as was manifested by the monsters who superintended the rack; who could remain unmoved by the stifled groans of a lacerated victim, and seem to derive a savage pleasure from the infernal violence which was inflicted on the agonized and generally innocent sufferer; and could stand indifferent spectators, when the bones of the arms and legs were cracking, the ligaments breaking, the eye-balls starting from their sockets, until violated nature put an end to this diabolical tragedy, and the individual either fainted or expired.

Contrasted with such extreme manifestations of this propensity, are those persons who will merely kill in self-defence, and who would not willingly inflict pain on anything. And, lastly, there are others with so very little of this carnivorous propensity, that they suffer almost torture in witnessing the slaughter even of animals.*

* The Hindoos have *Destructiveness* moderate, and *Benevolence* large. Was it this organization which induced MENU to prohibit the destruction of animal life? We think it probable.

In a moral point of view this feeling is important, for it gives great energy; and, however largely developed, if it be associated with naturally strong moral qualities and intelligence, it will not induce a desire for acts of cruelty, much less lead to that enormity against the laws, natural and revealed, the murdering of a fellow-creature!

Sometimes this organ, like others in the brain, is liable to diseased action, either induced by an unrestrained activity, or when under some sudden excitement. Fatal instances of the latter statement we read of, when individuals suddenly kill their dearest friends, fathers, mothers, wives, and children; and afterwards, by a peculiar infatuation, deliver themselves up to the civil authorities.

The *natural language* which this propensity imparts to the features when it is under excitement, cannot be misunderstood by even the tyro in physiognomical expression: the scowling brow; the inverted eye; the teeth closed, and the lips half open; the face livid, and the nostrils distortedly distended,—all these show the signs of the "savage man," without even looking at the clenched fist, and other such concomitant manifestations.

Secretiveness (Instinct essential to Prudence.)

Dr. Gall having observed much deceit and cunning among mankind, and being convinced from the evidence of facts that other feelings had cerebral organs, he thought it most probable there was one to indicate this feeling also. It would not answer our purpose to detail his proceedings; but as they were strictly philosophical, the results only may be very briefly stated. He marked the conduct of sly, deceitful, and fraudulent men; and found that there was a configuration, at the part of

the head above Destructiveness, resembling in form, situation, and proportion, the heads of subtle and cunning animals, however the individuals differed in the conformation of their heads in other respects. Hence it was that Gall, misled again by an abused manifestation of a fundamental instinct, mistook its tendency, and mis-named its function. To Spurzheim, his illustrious pupil, we are indebted for a better nomenclature;* and although *Secretiveness* is still a very imperfect word, yet it may serve to express the abstract idea of a power to *conceal*, which is felt by the human mind.

It is often to be remarked, that *cunning* supplies in some measure the place of intelligence, inasmuch as its wariness enables an individual to conceal his purposes, to throw a veil over his actions, and so to simulate sensations, to the reality of which he is insensible. The cunning man will borrow all shapes in order to conceal his own. If piety be deemed the brightest ornament of our nature, he puts on an appearance of sanctity; if patriotism be considered most honourable, he ingeniously throws a specious covering over his real intentions, and, with seeming zealousness in the cause of civil liberty and the rights of man, makes his creed only a means to personal success. The abuses of this faculty are many; viz. lying, deceit, evasion, subtlety, and all the indescribable varieties of hypocrisy and villany. But this instinct, like all the preceding ones, was essential for our happiness; for without Secretiveness all a man's thoughts are communicated, whether they have a good or an evil tendency. His brain seems to have a hole in it, and every vain conceit, instead of being corrected by reflection, is allowed to escape, not unfrequently causing

* See subsequent remarks on the moral and philosophical principles.

strife and misery,—an effect which might take place even should an individual be otherwise too amiable to give the smallest portion of pain to any human being. From this latter view, it will be recognized that Secretiveness is an element essential to prudence. Our thoughts, during their busy wanderings, both awake and asleep, seem to be merely involuntary agents, receiving, through the different inlets of the external senses, a variety of materials, sometimes forming incongruous compounds; and it would be very absurd and mischievous to pour out these heterogeneous notions, like a perpetual current. A prudential reserve enables a man to refine any improper sensations by moral precepts and reflection, before he gives them utterance. If then an individual had every other faculty, but was deficient in Secretiveness, he would be an object of pity, particularly in a state of civilization. He would be too transparent for the world, and might be seen through, and duped, by all who chose to act upon his unsuspicious nature. Not so with the reverse of this organization. Hence plots, dissimulation, and all that class of vices which, like pestilential diseases, are ravaging among society, sometimes breaking out in schemes of deepest villany, sometimes showing themselves actively operating in the form of calumny and its blasting consequences. But under all its numerous appearances, it is still characterized by a natural language, not easily mistaken. The eye of the secretive man is turned with a side-long glance; or he looks upwards with the upper lid contracted, as if in the act of directing a careful glance at his own inward workings and the effects he is producing. The voice is low, rather than soft, and there is in it a sinister expression, a something *disingenuous*, and consequently repugnant to a candid mind.

In some cases, there may be observed an anxiety in the countenance, which has something ambiguous in the expression: either it may be supposed to mean, "*I know a secret;*" or, "*I'll tell you a secret;*" but, when the secretive man intends the latter, there is a rapid motion of the head, occasioned by looking round and sideways, as if to guard against being intruded upon by listeners; in short, that expression which is understood by suspicion.

Acquisitiveness.

Furnished with all the preceding instincts, which constitute the social and domestic feelings, man would still have been imperfectly endowed had there not been placed within him an instinct to enable him to provide against the contingencies of poverty and want; and numerous facts prove, that there is such an organ situated anterior to Secretiveness, being covered by the middle of the temporal bone,* and which is called by Dr. Spurzheim, the organ of Acquisitiveness, i.e. of an instinct to acquire. The specific things which different individuals will desire to hoard, depend on the local or geographical situation, the relative value attached to objects, the produce of the country, the state of our necessities, and numerous other controlling circumstances. Hence the feeling will receive its *direction* from the other faculties of the mind. And who can observe this essential attribute of our nature, and not regret that it is so generally misguided in the state of civilization? that, instead of it simply exciting a provident disposition, it leads man to sacrifice comfort, honour, and peace of mind, to its own exclusive gratification, and is seemingly careless of all

* The temporal bone is the place to which the muscle of the temple is attached: hence, by moving the upper and lower jaws, the place is seen.

the dictates of his moral nature? The unfortunate slave of this passion will accumulate more than he wants; and not unfrequently his desire of gain is so inordinate, that he becomes the inmate of a mad-house; or, under the painful consequence of a sudden loss, violates the law of self-preservation by an act of suicide.

Should this feeling, on the contrary, be feebly manifested, the thoughtless being would take no care for the morrow, which might break upon him when he was almost destitute of common necessaries. At least, such would be the case in a state of nature, when the harvest might be blighted during the night by the storm, and the flocks of the fields be destroyed by lightning. In a state of civilization, the consequences of these and numerous other physical evils are rendered less disastrous by the granaries stored with plenty, and the advantages of commercial intercourse, which latter, in case of failure in our crops or other kinds of food, enables us to obtain supplies from neighbouring nations.

There are many abuses of this instinct, besides those enumerated: it may lead to peculation, gambling, forgery, and theft; and its abuse is particularly conspicuous in all monopolists who combine their experience and intelligence for the purpose of gratifying Acquisitiveness, even although thousands may be ruined by their success. Nevertheless it is essential to make a just discrimination between its fundamental tendency and its aberrations from various accidental circumstances—its diseased excitements after fevers, and during the state of pregnancy; for it sometimes occurs, that persons even in opulent circumstances will steal, and this *abuse* will occasionally be the case during the fœtal gestation, when the brain and nervous system are under extraordinary excitement. Such instances as the latter may be deemed unfair

examples to prove the innateness of this instinct; but who will deny, that by admitting it to be a fundamental power we have a solution to occurrences otherwise inexplicable? Besides, it frequently happens that idiots manifest a strong tendency to hoard, and in these cases it is curious for the philosophic observer to mark the animal exercise of the instinct when left without an intellectual direction. During Dr. Spurzheim's visit to Hull, we examined the head of a man in the Charity-Hall, in whom the acquisitive propensity was strongly marked: he was a perfect simpleton, but still felt an inordinate desire to accumulate what he deemed wealth, and this consisted of old rags, pieces of pipes, old chews of tobacco, &c., and he would stand and contemplate his *fancied* treasure with apparent satisfaction. And as all our notions are relative, is not this case a fine satire on those who seem only desirous to heap up riches, which are equally worthless, unless used for the advantage of mankind? And there is little doubt but that the poor being we have just alluded to, suffered as much from the loss of the vast heaps of rubbish piled up in his room, when the superintendent forcibly ejected the motley accumulation, as the sordid man does when he loses some portion of his glittering gold, or any other species of wealth.*

Constructiveness.

A genius for mechanical pursuits, accompanied with an early tendency to invent, must depend on an innate impulse which impels the individual almost irresistibly to gratify it with something connected with manual dexterity. This will be obvious to the most shallow thinker

* It would be easy to prove the innateness of this instinct by tracing it in various animals that evince a strong sense of property; but we avoid doing so, being anxious to confine ourselves to human Phrenology.

who permits himself to reflect on the cause of that *mechanical* precocity, which is sometimes conspicuously shown by individuals, before such talent could be supposed to result from reflection or mere imitative influence. Neither can this talent be deemed accidental in its origin, because there is seldom any favourable disposition of external circumstances to account for it on that supposition: frequently the young artist is born under the disadvantages of poverty and its concomitants, and yet, by the force of this faculty and other mental qualities, he educates himself, and, bursting the bonds which might confine ordinary minds, he raises himself by the force of genius alone to the highest intellectual rank: whilst if genius were of artificial growth, the children of the wealthy would invariably excel, because they are surrounded with every thing calculated to call forth talent if it depended on imitation or habit, or if by an act of volition, by the mere desire, it were possible to obtain mental superiority. But how very few painters, sculptors, architects, and mechanics are born among the affluent! On the contrary, how many artists are found springing up in all ages, under the most adverse fortune: like certain specimens in the vegetable kingdom, they seem to bid defiance to the cold soil in which they grow and to the humid clouds hovering around them, and, by the force of their inherent qualities, they shoot forth with luxuriant vigour. The very obstacles which would appear almost an insuperable barrier to the sons of poverty, tend to arouse their best energies, and give that exalted tone to their faculties, to which we owe most works of taste and utility—works which remain immortal monuments of the indestructibility of genius!

The organ of Constructiveness is situated in the anterior lobes, and appears to many reflecting phrenologists

to belong rather to the order of the perceptive faculties than of the mere instincts.* It is found to be very large in all artists of great eminence, whether as mechanics, architects, painters, or sculptors; in short, in all who exhibit ingenuity in contrivance and manual dexterity. The head has a squareness when viewed in front, and this is owing to the circumstance that Constructiveness is situated at the anterior part of the temples, and is to be demonstrated in all cases of great mechanic powers, although there may be a marked difference in the general configuration. With regard to this faculty, there is in every instance a concurrent developement of both the organ and the function; that is to say, we never saw a case of a man famous for manipulations who had little Constructiveness: but, as it is possible for us to invent machinery without hands, it is clear that such inventions are independent of mere manual practice. On this faculty depend all our powers of contrivance, and, like the preceding instincts, this one receives strong illustrations from the animal kingdom; for we find in all animals that build or burrow, that their skill and invention will be always in proportion to the large or small developement of the organ in which this instinct resides.

Self-esteem.

This cerebral organ is situated above the organ of *Adhesiveness*, and was supposed to give nobleness to thought, and consequently to infuse a kind of dignity into all our actions. It is difficult to avoid some error in analysing the various fundamental faculties, because most of our actions spring from a combination of different faculties,

* This view is opposed to great authority: Dr. Spurzheim, Mr. Combe, and others, place it with the Feelings; and we have not altered this arrangement.

and in very few instances do we find *one* power acting singly. But the one under consideration may be seen exerting such a potent influence when very large, that it imparts to the features a *natural language*—a language so powerful in its expression, that it can be read without difficulty or previous study. The position of the head,—the tone of voice,—the expression of the face,—nay, the very gait, when Self-esteem is large,—all seem to indicate "an exalted opinion of self." One proof of the existence of a fundamental power, like that we are investigating, may be drawn from the fact, that pride owes not its birth to either rank, wealth, or talent, but is to be found under all varieties of character and circumstance alike, in the rich or the high-born aristocrat, the man of genius, the beggar, and the idiot: nor can it be referred to education, as the little child will manifest it both in expression of countenance and tone of voice before he can comprehend the distinctions in society:—and, on the other hand, we observe many, rich in worldly gear and in intellectual lore, with not a particle of pride! Finding, then, such marked distinctions in character from the presence or the absence of this quality,—even in infancy, and in situations where we should not *a priori* expect to meet with it,—we cannot avoid the natural conclusion, that it is innate; and observation demonstrates, that its greater or less intensity is (like that of all the preceding faculties) dependent on the size of the organ, and of course moderated or excited into more energetic action by the temperament.

The organ, when controlled by moral sensations and guided by reason, does indeed infuse a dignity into the whole demeanour; but when acting without these qualities, it degenerates into an inordinate selfishness;—and the man who is thus subject to its unmitigated

influence (whether he be rich or poor) may be proud of himself, of his actions, of his productions however trifling; he may be proud of his wife and children (merely because they are his); yet he will assuredly be grovelling in his thoughts, and ignoble in his actions.

Love of Approbation.

The *Love of Approbation* is situated on each side of the last organ;* and is, as is too well known, a very powerful motive. It manifests itself in all the different stages of life; it causes the infant to smile when noticed, the more matured to obey their parents and teachers from a wish to be praised; and in manhood it may, according to the nature of the other controlling influences, lead to criminal or to virtuous actions. If it be directed by the human faculties,† it may achieve the most exalted acts, and excite others to emulate them: but whenever it assumes the mastery of any individual, he will inevitably sink into the lowest depths of vice, if circumstances throw him into the society of profligate companions; and there is no doubt but many a youth has been betrayed into utter ruin by the influence of vanity alone—of that excess of vanity which is only another term for the mere love of approbation: hence that rivalry in immorality which characterizes the midnight revels of the bacchanalian—the blaspheming oath

* To avoid any mistake, we may here notice that all the organs are double except those situated at the union of the two hemispheres in the middle of the head, and are only marked with one number which takes in both organs.

† The feelings we are discussing (such as Amativeness, &c.) man has in common with the lower animals; but the moral and religious sentiments are peculiar to him: hence we speak of them as "human faculties."

—the impious scoff—the ribald song—the indecent witticism—the lewd tale—the drunken frolic—the lavishness of expense—the vanity in dress; in short, the zealous pursuit of every thing degrading, and the systematic mockery of every thing ennobling to humanity: into all these evils, and their destructive consequences, the debauchee is urged by the fear of being ridiculed for not joining in the sports and excesses of his associates, or, in other words, by his love of approbation.

Even in the well-organized being, if this instinct be too much cultivated, it becomes the main-spring of all his actions, and necessarily induces him to sacrifice truth, reason, every thing noble, at the shrine of vanity. He incessantly thirsts after praise, and feeds greedily on flattery; to gratify this morbid appetite, he becomes literally "all things to all men:" nay, he will bear many privations, undergo the greatest fatigue, and endure hardships of a thousand kinds, to gain an applause, which his intelligence must despise, if he estimated the real value of the approbation as it merits. Look, for example, what the candidate for public fame frequently suffers in the pursuit of the wished-for boon: his energies are destroyed by corroding care, and he abridges the span of life allotted him, consoled with the stale and unprofitable anticipation of posthumous fame!

When, however, this feeling is comparatively small, an individual is indifferent whether he has the good or the bad opinion of his associates; and such a person will be negligent, uncourteous, and selfish. The kind of influence which this particular feeling exercises over the conduct, depends very much on the general organization and the education which the feeling itself receives: it may induce a virtuous desire of praise, a laudable emulation, an uniform urbanity, and that suavity of

manner which is so pleasing, because the possessor of it himself seems pleased with the happiness of others: or it may induce various abuses; a senseless ambition, extravagant boasting, and all the varieties of vanity, from the most childish and trifling, to the most morbid and insatiable. Therefore, like all our faculties, this one may become a source of good or evil, just according to the bias which circumstances and education may give it.

Cautiousness.

We have already investigated the evidence of a cerebral organ through which Courage is experienced, and we shall also find equally valid proof of an instinct (Cautiousness) which, when excited, gives rise to different degrees of a sensation to which various terms have been applied—Hesitation, Caution, Timidity, Fear, and Terror. The organ occupies the lateral part of the head, rather backwards and in the middle of the parietal bones, and is connected with the convolutions of the last named organ. Some writers on the philosophy of mind have contended, that *Fear* and *Courage* were fundamental faculties; whilst other writers have denied this to be so, asserting that *Fear* is the negative of *Courage*, and *vice versa*; or, in other language, that the absence of the one presupposes the presence of the other. But, if nature had been consulted, if their own experience had been allowed to speak, a contrary inference (to the latter) must have resulted. The various degrees of each instinct noticed in different members of the same family; the instinctive fear of a child who is positively ignorant of casualties, and of every species of danger; and the reckless courage and daring of another, urged on without reflection, and unconscious of its own temerity,—afford

at least presumptive evidence that both Caution and Courage are innate;* otherwise, how could they operate before habit or education had called them into action?

It might prove instructive, if we were to examine the causes which produce sensations of real or imaginary danger, and all the various phenomena of fear. A *real* sensation of fear must be produced by external circumstances, and the mind is affected through the senses: as, for instance, we observe an army coming with hostile preparations: we are alarmed for our own safety; and when we hear the firing of the cannon we shudder at the consequences, whilst the smell of smoke and powder produce an extreme of terror; yet we may be all the time so situated as to be certain of being secure from danger: and all these analogous consequences might take place involuntarily, by our allowing the *imagination* to picture a similar train of occurrences, as it frequently does during sleep, under a morbid and diseased action of Cautiousness. And it is also evident, that Courage may be excited either by real or fancied provocation. Besides, the innateness of Cautiousness and Courage is further demonstrated by the fact of their sometimes alternating. Let us suppose a man stopped on the road by a thief, who demands his money, presents a pistol to the traveller's head, and at the same time swears that, unless his demands be complied with, he will blow out his brains. The traveller would be alarmed, however strong his nerves, because his life must be in jeopardy; but if his

* The organ of Courage is situated in man and in courageous animals at the posterior and inferior angle of the parietal bones; and most timid animals have their heads broad at the part corresponding with *Cautiousness* in man: surely this cannot be attributed to mere coincidence?—If these uniform consequences be deemed *accidental*, we wish to know whether *chemical results* may not also be regarded as adventitious?

instinct of Courage be naturally strong, he will, at the same time, be roused by its impulse to seize the robber's arm, grasp the deadly weapon that menaces him, and escape from the impending threat,—a consequence which could not be anticipated had *Cautiousness* alone been large: and if we could contemplate the quick and sudden transition in the expression of these alternating states of feeling, we should perceive that the natural language of both Fear and Courage was too strongly delineated to be considered as merely accidental: the tremulous voice,—the difficult breathing,—the anxious look,—the violent palpitations of the heart, and the vibratory motions of the knees,—are so many external indices of the first emotion; and their impressions are scarcely obliterated, when the subsequent sensation of the rising courage drives the blood to crimson the cheek and brighten the eye, and prepares the individual for mortal defence.

Finally, it is possible for Fear and Courage to be under simultaneous activity, a fact which may be satisfactorily verified by an appeal to the casualties of life. In Mrs. Hemans's interesting poem of "The Mother and Child," this is well illustrated: the mother, observing her darling babe on the brow of a precipice, and in imminent danger, must have been agonized with terror (the highest excitement of Cautiousness); but still, actuated by an exalted courage, she cautiously proceeded to snatch the infant from death, to which the slightest sound of her voice would have instantly sent him: this last struggle of such conflicting emotions must have been directed by a powerful intelligence.

We have been induced to enter into this full description of the functions of these two fundamental powers, because they are both of them highly important, and both exert a salutary influence when they exist in due

proportions. When Cautiousness is too large, it induces irresolution, inquietude, and anxiety, and sometimes becomes diseased, in which case it is called Melancholia and Hypochondriasis: when too small, the individual is not sufficiently guarded in his actions, his opinions, or his expressions: and if, in addition to this deficiency, he lacks a good natural intelligence, he is devoid of foresight, and is consequently exposed to innumerable inconveniences and sufferings.

We have now concluded our analysis of the *first species* (feelings) of the *genus* Affective Faculties; and intend, in the next chapter, to explain the *second species*, called Moral and Religious Sentiments, which are the most important to us as responsible agents; because the moral sentiments regulate the tendencies of the feelings, and prevent their degenerating into that inordinate selfishness to which they are liable when they act with uncontrolled energy, and display themselves in the shape of foibles, follies, errors, vices, or deepest crimes, according to the degree of abuse which gives the characterising denomination to the conduct.

CHAPTER IV.

HAVING investigated the tendency of various faculties situated at the back and sides of the head (the occipital and basilar regions), we shall discuss the functions of the upper part of the head, where the noblest attributes of man—those which constitute him superior to all created beings, and even in this life are the sources of his highest and most unalloyed gratifications—are located.

Benevolence.

This organ is situated at the *superior and middle part* of the frontal bone, a little anterior to the *fontanel*,* and is the seat of a faculty so important to us, that it should be appealed to as a motive, and carefully regulated by judicious education.

A superficial view of society will be sufficient to prove that the sentiment of Benevolence is instinctive, and cannot be attributed to education or any other accidental circumstance; yet the influence of these latter may modify it in different individuals, and retard or stimulate it imperceptibly through the lapse of ages in various nations of the earth. Amongst the naked and shivering savages of the North,—the swarthy tribes of Africa,—the copper-coloured Americans,—the natives of the various Islands of the Pacific and Atlantic Oceans,—the numerous inhabitants of Europe,—and, in short, in all

* The opening felt at the upper part of a child's head.

places where men associate, we can trace different degrees of this noble sentiment, conspicuously distinguishing their laws, manners, and customs,—their religious institutions,—their forms of government,—their treatment of strangers,—their modes of warfare, and their conduct towards their prisoners; so that, from an acquaintance with the laws and institutions of any people, we might infer the national developement of their Benevolence. However, among all people there may be great extremes, and even in civilized Europe there will occasionally be found *monsters* who appear to delight in cruelty; who seem deficient in all kindness and sympathy, or in whom the dictates of Benevolence, from having been in early life disregarded, at last become ineffective. Contrasted with these latter examples, are those instances of the noblest specimens of human nature, who seem to delight in doing good, and not only bless the country of their birth, but, as far as they may possess the means,* all other countries too. The benevolent man cannot feel happy as long as misery, famine, disease, bodily suffering, and mental misery, are the bitter portion of any of his fellow-creatures. Of all the faculties of the mind, there is not one so completely disinterested as the sentiment of Benevolence, which is the spring of all actions that can mitigate distress, or ameliorate the condition of man; and, when strongly felt, it urges the possessor to the performance of humane actions, without thinking of the claims of the individual, and without calculating on present or future remuneration. It excites within us the emotion of pity, and tends to the exercise of mercy and forbearance even when injured in our person or possessions, and opposes itself to all vindictiveness by

* As examples in this country, look at *Howard*, *Granville Sharp*, and *Lord Chatham*, men endeared by their philanthropy.

the mildest demeanour and the most charitable behaviour: in short, it is the source of all philanthropy and tenderness.

When this faculty exists in but a moderate degree, it may exhibit merely indifference to the weal or woe of others; and if this deficiency be accompanied with a low organization, it gives rise to inveterate selfishness, unkindness, malevolence, cruelty, which nature has marked by external signs of more or less intensity,—the low forehead,* the coarse, scowling features,—and a something which seems to excite a certain kind of repugnance, and intimates that such a person feels no sympathy that may infringe upon his comforts even in the smallest degree.

Veneration.

The organ of Veneration is situated behind the latter, and occupies the middle of the head (fontanel), and when it is large, it gives an elevation in the centre of the head resembling the pyramidal termination of a primitive rock; and when this sentiment is very moderate, then we may observe a depression forming a kind of valley, if the adjacent organs are above the average, and, consequently, the degrees of natural veneration may be indicated by the cranial configuration. The sentiment of Veneration seems to endue us with an instinctive deferential feeling, but requires the assistance of reason to give this *innate* respect a proper direction: by itself, it may lead us to venerate every thing *animate* or *inani-*

* It should be stated by the way of caution, in order to prevent an erroneous application of these views, that the hair of some persons grows very low, and consequently the forehead must commence at the seat of the organ of Benevolence, without at all noticing the fallacious boundary of the hairy covering.

mate, just as circumstances of country, birth, and education, may influence the predilection. For instance, the Chaldean worshipped the serpent; the Sabean, the stars; the Persian, fire; the Egyptian, the Nile; and so forth: and in all these examples (and numerous others) we could trace the origin of each species of worship in some fancied good or evil influence which the serpent, the stars, the fire, and the Nile communicated to the people of each country, either directly or indirectly. It is, therefore, obvious that Gall was wrong in terming this cerebral part the "Organ of Theosophy," (religion), for, under the name of religion, man has practised the most senseless superstitions, the most sanguinary rites, the most absurd and indecent ceremonies, as well as the purest morals dictated and dignified by the most sacred truths, and refined by an exalted intelligence. Nevertheless, in every system bearing the name of religion, we find the operation of the *sentiment* we are discussing, because in all of them *something* is actually venerated.* But, is the veneration of an idolater crouching before the serpent (or any other created object) to be compared to the delightful emotion which is experienced by the well-cultivated mind of him who bends his knees in worship to the living God, the Creator of all things? Certainly not; and for this simple reason: in the first mentioned worshipper the sentiment acts blindly and passively, but in the last, it springs from principle, and a kind of mental gratitude for the blessings constantly dispensed to him.

Finally, the innateness of Veneration may be inferred by observing the difference in the expression of this sentiment in children: some will be naturally respectful,

* Religion is a compound sentiment: see subsequent remarks on Hope and Marvellousness.

and that, too, before education could have instilled into them any knowledge of the *grades* of society, or the deference due to rank or talent; whilst others are proof against all instruction on this topic, and cannot be persuaded or beaten into a sense of respect to superiors. Nature points out the cause of the difference by the size of the venerative faculty. This organ becomes, in its various abuses, the source of blind homage, crouching sycophancy, servility, and similar degrading vices and foibles.

Firmness.

The organ of Firmness is situated behind that of Veneration in the mesial line (middle of the head), thus occupying a place mid-way between the lower propensities (feelings) and the moral sentiments; and it may act with the former or the latter, as either class predominates in the individual, and therefore it may urge the sensualist to persevere in his career of vice, and determine the moral man to act undeviatingly in obedience to the higher motives of human action. In education, this quality may, if properly directed, be turned to a very useful account, or, if neglected and left to grow rank by its activity, it may induce the most baneful consequences.

Firmness is essential in every situation of life, and no great object can be achieved without it, as it gives to those endued with good intellect what is called presence of mind, and a steady determination to overcome natural impediments. Its moral advantages are equally salutary, as it enables us to bear physical sufferings, and disposes us to support trials, disappointments, and all the afflicting dispensations of Providence to which mortality is liable, with a calm and unbending resignation, because our judgment decides on the impropriety of resisting that

which is inevitable, or of impiously regretting that which is the fiat of our Creator.

This faculty, when in excess, and acting without moral and intellectual control, may also lead to various abuses, such as stubbornness, obstinacy, and the like; and, when very moderate, it gives rise to consequences equally injurious, namely, fickleness and indecision of purpose.

Conscientiousness (Instinctive Justice.)

The organ of Conscientiousness is situated on each side of Firmness, and the two sentiments taken together may be compared to censors appointed by the Creator, to guard us against acting from the mere impulse of our lower feelings; or they may be regarded as a moral balance by which we should weigh all our motives so that we may not infringe upon the rights of others, or gratify personal desires by compromising our dignity as moral and intelligent beings.

It has been a subject of much difference of opinion among metaphysical writers, whether we have an instinctive sense of justice; some asserting that we have no such sentiment naturally, whilst others contend that various mental phenomena prove, by logical inferences, that we are endued with it. The latter opinion according with our views, and the subject itself being very important to the well-being of society, we shall discuss it rather more in detail than we have discussed any of the foregoing faculties. First, we shall endeavour to prove that this noble sentiment is not acquired; Secondly, that it is not to be referred to education; and Lastly, that it cannot be attributed to the various institutions of man. The reasons we assign are these: 1st. It is ascertained by facts and observations that there is a

marked difference in reference to the exercise of this sentiment not only in children, but also in adults; that, in children, this diversity is palpable, long before their judgment can direct them to regard the dictates of justice, or experience inform them that it is most politic to act rightly. 2nd. Education cannot create a single power, or confer a new principle: all that cultivation can effect is simply to modify, excite, or retard the fundamental faculties, to stimulate these embryo powers according to the mental laws, or to prevent by negative means their springing up too luxuriantly, and rankling into moral abuses. Now, if this be admitted, it will no longer seem paradoxical why children of the wealthy and the cultivated are sometimes guilty of moral delinquencies as well as the offspring of the needy and neglected; because, they being originally defective in strong Instinctive Justice, an education which was probably confined to precept could not nourish it into a more healthy condition. 3rd. As all institutions are the result of man's necessities, or induced by his desire for pleasure; and as they are all of them, whether directed to the one or the other object, suggested by his own ideas, which depend on the innate mental faculties; therefore all rules, laws, or enactments, intended to secure his rights, or provide for his wants, must be regarded, not as accidental, but as immediately and necessarily dependent upon the nature of those faculties themselves.

That there is an innate sense of justice, may also be inferred from the indifference with which some persons commit flagrant acts of dishonesty, invidious slander, perjury, and lying: whilst others suffer great compunction for slight aberrations of duty, and the most corroding remorse for any thing partaking of the nature of crime. The greater or less conscientiousness of each may mark

the natural distinctions of character, yet sometimes the first conduct is induced by the potent force of early example, and by the entire neglect, on the part of parents, to adopt the means of stimulating the innate instrument.

The opponents of these views state, "that it is absurd to suppose that we possess naturally a sense of right and wrong: that which we call Conscience, is produced by education and the laws; for, that which is called Justice has been materially different in different ages and countries." It might as well be contended that the *sense of smell* is a mere result of circumstance, and that, because each person has some preference, there is no such thing as a positive law of smell; that odours are merely regarded as pleasant or unpleasant by caprice; and that the words aromatic, perfume, effluvium, have no positive meaning, and should only be deemed arbitrary terms. If such unphilosophic principles be admitted, we must regard every operation of nature as accidental. But he who has observed the uniform order in the varied works of the Creator, must conclude that they are bound by fixed laws: hence, however modified the same laws may be in every individual of a species, the effects are consequential and definite. Now, the supposition that a principle (Justice) which is the strongest bond of society, is the product of caprice, involves a physical impossibility, and is in itself a moral absurdity. If man has abused his prerogative of moral liberty, and, in defiance of his conscientious instinct, has given a preference to the degrading abuses of his propensities for selfish gratification, it is a libel on his Maker, and in contradiction to experience, to assert that he can contemplate a violation of rectitude in the same light as the performance of actions strictly just. As well might we suppose that cruelty can be deemed kindness, or that pain is pleasure; for, *Justice*,

like the unchangeable Being who has conferred that sentiment upon us, is, like Him, immutable in its principles, although it has been perverted in all ages. Nero, Caligula, and others may furnish illustrative examples of a gross abuse of this principle; but, can we suppose that the Romans viewed the atrocities of those emperors as acts of justice? or that the virtuous decisions of Trajan and the Antonines were received by their subjects as something merely conventional?

Finally, it must be admitted that, when Conscientiousness acts in unison with the moral and intellectual qualities of man, the consequences in every age have been similar: "he has done unto others as he would they should do unto him"—which beautiful aphorism is the emanation of the natural promptings of the organ of Conscientiousness. The converse of this has also invariably resulted whenever men have sought their own gratification in defiance of the moral laws. It is to Dr. Spurzheim that we are indebted for the discovery of this organ, the existence of which is now established by a vast number of facts.

Hope.

The organ of Hope is situated anterior to Conscientiousness, on each side of Veneration. The least reflection will prove it to be innate, as well as essential to happiness even in this life, and that it cannot be attributed to any thing adventitious, it being more or less experienced by all individuals, without reference to their rank, wealth, or mental acquirements, and sometimes even absenting itself from the abodes of splendour and extravagance, and remaining the constant companion of the poor and the unfortunate.

Hope is supposed to be most active in youth. It meets us on the very threshold of manhood, and urges us to the pursuit of some object. It is a bright beacon to guide us through the rugged paths of life; nor is it dismayed by danger, or overwhelmed by disappointments: 'tis most true, that in the mid-day of existence, painful realities or debilitating excesses may dim its brilliancy,—but still it never altogether forsakes us. In old age it revives with a renovated energy, and, like the fabled Phœnix, rises bright and beautiful amidst the enervated ruins that are fast decaying around us, and, in our last moments, flutters round the bed of sickness, and, like a goodly spirit, beckons us away to another and a better world, "where the wicked cease from troubling, and the weary are at rest."

This sentiment, however, which is so essential to make existence tolerable, which is so powerful in stimulating us to attempt extraordinary actions, and which renders the prospect of death far from gloomy, inspiring us with vivid thoughts on the beauties of the eternal country, is, nevertheless, liable to numerous aberrations when its organ is disproportionately large and active: it may then lead to aërial castle-building, and expose a man to the risk of losing the substantial blessings of life whilst he is pursuing the mere shadowy forms which float before his mental vision. A highly-excited state of this sentiment, when uncontrolled by the understanding, may induce a disposition for extravagant speculations, and many other mischievous abuses.

A moderate developement is equally to be regretted, as it may induce lowness and dejection of spirits; and, the mind's eye being rendered morbidly distorted, the most trifling impediments to our pursuits will be mag-

nified beyond all ordinary dimensions, and thus prevent our success in even the common occurrences of life.

Hope, therefore, should be judiciously cultivated, if we wish to insure a healthy exercise of it, for its extremes verge on the borders of disease, and may lead to aberration of mind! The relative power of this sentiment is in the ratio of its cerebral instrument; for, when the sentiment is strongly manifested, this part of the brain is full, and when the sentiment is only imperfectly felt, there is a depression on each side.

Marvellousness.

The organ of Marvellousness is situated anterior to Hope, and gives a fulness to the superior and lateral parts of the frontal bone. This sentiment influences our ideas in matters of religion in a much greater degree than veneration does, as it induces within us emotions of faith. If belief in things invisible be an involuntary feeling, and not a result of any reasoning process, it must be dependent on some impulsive principle; and observation testifies that there is, even in infancy, much natural difference in this respect, some children being very credulous, whilst others evince an early scepticism, and frequently these opposite extremes may be found in the same family. An appeal to the history of mankind will verify the conclusion that this sentiment (faith) is innate, and that we must refer to it all the religious notions of the early states of society, wherein every visible thing, and also their supposed occult qualities, were objects of worship. Hence, besides adoring the sun, moon, stars, trees, animals, and stones; the barbarian bowed down submissively to the spirit of the storm, of the wind, or of the tempestuous hurricane;

and prostrated himself, when the sullen thunder-cloud roared in the distant prospect; and, in short, his uninformed mind believed in the divinity of all things which might affect him directly or indirectly either for good or for evil, so that his faith presents the same contrast to the more consistent notions of civilized man, as does the credulity of childhood when compared to the more rational views of the intelligent adult.

Some writers attribute the servile worship of Paganism to fear. It is true that fear may lend her aid; but yet the mysterious dread of something unknown is principally owing to the marvellous instinct. If the idolater, or his oral teacher, had, for instance, observed a tree blasted by a stroke of lightning, or the same element destroying a fellow-creature, his cautiousness would be naturally excited. Now, supposing him to approach the corpse, and to see it scorched and black,—that it had neither motion nor sensation, and did not answer him when he spoke to it,—what could be his ideas respecting an effect so new to him? Why, that the invisible Being who could so suddenly destroy, must be angry, and therefore, the trembling idolater, instigated by an instinctive desire of self-preservation, would endeavour to propitiate the supposed malignant spirit, either by presents or by personal adulation; and whenever afterwards he heard again the rolling of the distant thunder, or saw its fiery herald, he would, by association, think of its potency, and, prostrating himself, would repeat his homage to the supposed presence of the spirit of the storm.

To similar instances of superstition, and ignorance of the operations of nature, may be traced the misguided worship of polytheism; and even some of the ancient philosophers used to speak of a *soul* in every thing,

owing to want of information on the principles of attraction, and of the laws of chemistry, magnetism, and electricity. It is this very belief in occult causes which has induced poets to personify every part of animate and inanimate nature, a notion which is beautifully illustrated in the following lines:—

"To every form of being is assigned
"An active principle, howe'er removed
"From sense and observation; it subsists
"In all things; in all natures; in the stars
"Of azure heaven; the unenduring clouds;
"In flower and tree, and every pebbly stone
"That paves the brook; the stationary rock,
"The moving waters, and the invisible air."

WORDSWORTH.

In the present age, we have ample evidence that the abuse of the marvellous sentiment originates a belief in charms, talismans, magic omens, dreams, and many very absurd misconceptions of ordinary occurrences. *Yet, when this sentiment is controlled by reason, it appears essential to give credence to what we regard as fundamental truth.* And, whether our philosophical conviction be referred to objects of external nature or to their particular phenomena (for our knowledge of the natural laws is but the experience of their effects), we who are acquainted with secondary causes only, should be constantly doubting the recurrence of similar consequences, if there had not been an instinctive faith. But possessing this sentiment of natural belief, we are not now under the necessity of reconvincing ourselves that the operations of nature, which we observe, are uniform and constant: we feel certain that they are so. Besides, even in all our social and domestic relations,

and in every ordinary transaction with our fellow-men, if we had been deprived of faith, our lives would have been chequered with vague anticipations, and distracted with constant doubts, destructive alike to the happiness of the individual, and to that confidence which is the very essence of friendship, and the best security to the commonwealth. It is however a faculty that requires great care in cultivating.

Ideality.

This organ is situated above the temples, rather backwards, and nearly under the organ of Marvellousness. It was originally named by Gall "The Organ of Poesy," because he had observed that the heads of poets were very wide at this part. But, as poetry differs not only in subject, but also in style and manner of composition, it cannot be referred to a single mental faculty. We, therefore, think that the term *Ideality*, used by Spurzheim, is most correct, as we shall soon perceive that this quality is essential to every kind of poetic composition, and that it is the *principle* which mainly distinguishes between prose and poetry.*

Although poetry may be divided into many kinds, yet they all require a certain degree of imagination not easily to be described,—a thrilling enthusiastic *something*, which must be felt. There may be a playfulness of the fancy, like flitting clouds dancing over the horizon before the tempest's approach, and which delight us from the variety of form, and other undefineable beauties, but which are too evanescent to leave any lasting impression

* In discussing the nature of *Ideality*, as the essential ingredient in poetry, we shall use, as synonymous with it, the terms *imagination*, *fancy*, *taste*, and *inspiration*; for all these words correspond to the French term "*beau-ideal*."

on the memory; or the composition may be imbued with high sentiments, and with bold and rapturous flights soaring far above common-place things and common-place circumstances; and which at once delight us, by a certain elevation of thought, a richness of decoration, and a tasteful embellishment differing from all matter-of-fact associations. It is poetry of this kind which infuses over all objects that it contemplates a warmth of colouring and a depth of shadow, and produces a mental picture in which every sense and every emotion of the mind are interested: and yet the materials of the poet must be drawn from external nature. It is the *Ideality* which communicates its promethean power, which produces endless *creations* as if by magic, and revels in ecstacy upon their fancied beauties. Thus, let us examine a fine landscape and accurately describe it in good well-written prose, and it might please; but, let *Ideality* add its more vivid touches, and our pleasure is changed into an exquisite delight. There is a soul-stirring rapture in the description: the very "words breathe:" a perfect picture is presented to the mind's eye, and the unclouded imagination sees in perspective every thing bright and beautiful. And, when Ideality assists in the delineation of human character, how terribly grand does it pourtray the passions, and what sublimity does it give to the fine pencilling of the higher sentiments!—an effect which results from its soaring above the ordinary level into a region of its own, where it bids defiance to time and space, and is enabled to view all things through a different medium, and to metamorphose their forms with an untrammelled and ever-varying caprice.

The great requisite of poetry is, that *Ideality* should pervade it, and this without reference to style or subject;

so that in the amorous, the religious, the grave, or the gay,—whether put into the form of hexameters or into any other shape,—if there be not internal evidence that this delightful sentiment (Ideality) breathes throughout the whole composition, there may be rhyme and jingle, but there will not be poetry.

The moral utility of this sentiment is obvious; it inspires us with a desire of perfection, and hence induces zeal and enthusiasm; and, as no human being can actually attain to that standard of moral perfection which he may aim at, it seems most probable that Ideality, acting in conjunction with Hope, excites within us natural desires for a future state, which our imagination represents as a state of perfection.

Ideality, when large, renders music more enchanting, and throws a poetic glow over the works of the painter: and, to true eloquence it is absolutely indispensable. Dr. Spurzheim found it generally small in persons addicted to crime, and whose actions seemed to indicate a nearer approximation to the brute than to the nobler prerogative of man endowed with moral attributes.

Wit.

The word *Wit* being used to express various meanings, it is rendered liable to much ambiguity, unless we specify the kind of wit we allude to; because it is used indifferently to express great intelligence, quickness in repartee, natural humour, and irony; and, not unfrequently, it is also applied to mere mimicry. Nor do we think the phrenological application of the term is one whit more definite; for which reason it is difficult to assign the fundamental use of the cerebral part bearing this name. In our opinion it should not be placed among the *senti-*

ments, because it partakes of something of an intellectual quality; and this conclusion seems to be borne out by the fact that the convolutions of wit and causality are connected. The true function of an organ can only be ascertained by repeated observations, and by deliberating on its fitness for the office which we may suppose nature destined it to perform. It is, therefore, upon this ground that we shall venture to discuss certain notions in reference to the elementary power of the organ called Wit.* It appeared to us, after having reflected upon the subject, that this cerebral part was bestowed upon man as a moral censor; that it imparts a peculiar power which enables him to restrain the overacts of hypocrisy, injustice, and sensuality, when reason might fail to do so. Who is there that can bear merited ridicule? Who is there indifferent to the biting epithets of caustic satire? Or who is there, if guilty of moral infringements, that would not shrink from the scornful and contemptuous twinges of a cutting irony? Indeed there are very few men who do not writhe more under these mental scourges than they would under the infliction of the lash, because even the most obtunded intellects are sensitive whenever they have pictures of their own moral deformities presented to them, either a little exaggerated or in very vivid colours: under such circumstances the depraved may feel a sense of shame, which no reasoning could have aroused within them. The learned Dr. Isaac Barrow, in one of his excellent sermons against "Evil-speaking," has well defined the use of such a mental power as this we are speaking of; and the talented Akenside uses the following argument for its utility and existence:—

* I retain the name *Wit*, because I dislike innovation: for nothing is a more difficult task than to find an unobjectional term to denote any abstract quality of the mind.

"Ask we for what the Almighty Sire
"In mortals' bosoms wakes the gay contempt,
"These grateful stings of laughter: from disgust
"Educing pleasure? Wherefore but to aid
"The tardy steps of reason, and at once
"By this *prompt impulse* urge us to depress
"The giddy aims of folly?"

It is reasonable to infer, *a priori*, that if there existed a necessity for such a faculty, we should be endowed with it; and actual observation is confirmatory of its innateness, and that it is experienced in proportion to the size of its organ. It is this power which enables us to *contrast* very dissimilar objects or very opposite mental qualities (in which there may be palpable differences), by placing them together so as to force upon the mind a sort of conviction of an actual resemblance; it is this which calls forth a feeling of the ludicrous, because there is an incompatibility of any positive or natural association between the things or sentiments thus placed before the mind's eye in juxta-position: our risibility is irresistible on beholding such mental caricatures, and from the glaring contrariety and inconsistency of the subjects there are excited within us emotions of laughter or disgust.*

"———Suffice it to have said,
"Where'er the power of ridicule displays
"Her quaint-ey'd visage, some incongruous form,
"Some stubborn dissonance of things combined,
"Strikes on the quick perception."

AKENSIDE.

This sense of the ridiculous in the human mind, as it has been called by some anonymous writer, seems to be

* This view corresponds with some of the opinions ably expounded in the Edinburgh Phrenological Journal, particularly that of W. Scott, Esq., which gave me the first glimpse of the true fundamental function of the organ of Wit.

excited upon every occasion of any species of exaggerated speech or action; as for example, should we, when beholding an unprincipled sensualist, say, "that's a very honourable and virtuous man," the ironic phraseology would be generally comprehended, and be felt the stronger in proportion as the contrast of character was the stronger: because, by opposing to villany and sensuality the qualities of justice and morality, these latter, by their acknowledged brilliancy and their intrinsic beauties, reflect a light which renders the darkness of crime so very visible, that it appears the more hideous and disgusting.

Similar remarks would apply to *humour* and *caricature* which are particularly directed to *mannerism*. The affectation in dress, or fashion in speaking, walking, &c., &c., need only to be represented a little *exaggerated*, and it induces within us the sense of the *ridiculous*. In literary composition, or public speaking, this is well illustrated in the hyper-poetical running into mere *hyperbole*, and thus proving why "there is but one step from the sublime to the ridiculous." This faculty of Wit may be abused, as, for example, in turning sacred truths into ridicule, or in parodying any thing sentimental.

Imitation.

When we reflect on the multiplicity of ideas which are acquired by children without any kind of *direct* tuition, we must conclude that there is an innate faculty of imitation, which acts with more or less natural energy, and educates itself (as most of our affective faculties do) from an inherent impulse. Imitation may be excited by all the feelings and sentiments; and we shall soon perceive, that however indispensible this

faculty is, it is liable to certain aberrations, unless controlled by a good organization, or early regulated by education.

The organ of Imitation is situated on each side of Benevolence, and, from its natural tendency, might be designated the "mimic power," as it is this same faculty which gives to children a language of natural expression long before they acquire the least knowledge of artificial sounds (verbal language): and, in this manner, they comprehend certain physiognomical signs, even when they do not understand the words which orally represent them; as, for example, the nod of the head, as an affirmative; and the lateral shake, as meaning to express a negative. They also evidently distinguish between the frown of anger, and the smile of approbation, as they intuitively shrink back at the exhibition of the former, and are attracted by the pleasing impressions of the latter.

It is also the Imitative instinct which enables the deaf and dumb to express, by the powerful aid of natural language, the various feelings and sentiments, and this with such a nice discrimination of the many shades of affections which the different faculties are susceptible of expressing, under various degrees of excitement, as is far superior to the parrot-like repetition of words with which most people express those same sentiments and feelings. As an example let us take the following: *Nausea, Disgust, Loathing*—words which are used indifferently, but which, nevertheless, are accurately distinguished by the speaking features of the deaf and dumb. They can also represent in significant signs, by a species of animated hieroglyphics, very excellent pictures of most tangible objects,—of course with relative degrees of correctness, in proportion to the natural

intelligence of each individual acting with the imitative faculty variously developed.

The utility of such a faculty as this must be obvious; for, in every transaction between human beings, when the natural expression is exercised without dissimulation,* the mental faculties under excitement are more strongly delineated by the countenance and action, than they can possibly be by the evanescent sounds of artificial language: because, in mere verbal language or composition, without the auxiliary assistance of physiognomical expression, there is a want of what might be called a living commentary, and which, although noiseless, speaks a universal language illustrative of our different emotions. The instruments used for this purpose, by imitation, are those of all the external organs; the head, and the features of the face—the eyes, nose, mouth; and the body, with its members—the hands, arms, legs; which are moved with magic quickness, and by the varied action of these exterior indices we trace the fleeting changes of our innate faculties, each of which is marked with the most astonishing accuracy.

There is a wide range taken by the faculty of Imitation, because it can act together with all our feelings and sentiments, and is, as might be anticipated, essential to the dramatic actor and the orator; and is also important to the painter, the sculptor, and the musician, as it enables each artist to infuse an animation which gives to the figures upon canvass, to sculptured marble, and to the song, a living breath,—a something which seems to move, or to possess or express sensation. Its utility in education will be a subsequent consideration: for the

* Secretiveness.

present we shall conclude with noticing briefly its abused activity. It gives a tendency, when in excess, to mere mimicry,—a sort of monkey-like propensity to antics, often absurd, sometimes disgusting, and in persons who have little natural verbal language, there is, even in ordinary circumstances, too much gesticulation. Instances of the latter kind may occasionally be met with in persons nearly idiotic.

Concluding Remarks on the Affective Faculties.

Experience and observation have long since partially convinced the friends of education, "that unless the feelings be constantly restrained by reason, they are liable to numerous abuses." But how, and in what manner, is this mental harmony to be effected? Too much is left to accidental circumstances; and whenever it is found that this mere empirical mode of moral culture fails in its operation, the individual is abandoned to his own stupidity or depravity! We shall have occasion to refer again to this subject, when treating of the means of cultivating the affective faculties.

Having now proved, by facts and by inductive reasoning, that the feelings and sentiments have organic instruments in the brain, and that they each and severally act as innate impulses (instincts), when under excitement; we would, in concluding this chapter, impress upon the reader the importance of possessing correct knowledge respecting the affective faculties, which may become a blessing if early and properly educated, and a bane if exercised too much and too constantly. Thus, self-esteem may degenerate into pride and egotism; the religious organs may excite a senseless superstition; and even benevolence may induce prodigality, and bring ruin

CHAPTER V.

PRIOR to discussing the evidence for the different mental powers, commonly called perceptive and reflective faculties, it is essential to make a few general observations on the functions of the external senses of seeing, hearing, tasting, smelling, and touch. Phrenologists regard the senses as *sentinels*, placed by the all-wise Creator to intimate to man all objects in the external world; but they act as neutral agents; for, it is through the instrumentality of the innate faculties of the mind that we have consciousness of the existence of all the things in the material creation. The senses can only passively receive impressions: they do not form ideas of things seen or felt, or mark the kind and degree of sound, &c.; but they convey all such impressions to the different organs of the brain (perceptive faculties), and it is these recipient powers which take cognizance of those impressions, and through which we have separate ideas of form, size, colour, and all other qualities, and of the relation and order of all external objects.

Now if it were true, as some philosophers have stated it is, that all our ideas are formed by the senses, it is an incontrovertible fact, that many animals would then excel us in intellectual pursuits, because there are many birds and quadrupeds whose vision, smell, and hearing are much more exquisitely intense, and consequently more perfect in their receptive capacities, than is to be found even in the most intelligent among mankind. A few

examples will suffice to demonstrate the correctness of our views, and negative the latter proposition; or, at least, they will show the fallacy of attributing to the perfection of the external senses the rank man holds as an intellectual agent.

The eagle has a very large optic nerve, and it can see objects on the surface of the earth when it rises even to so great a height in the air as to be invisible to us. Now then, if ideas of colour, form, distance, &c., were dependent on vision, it cannot be denied that the eagle should excel man in a capacity for painting, modelling, &c., and all other ideas attributable to the eye.

The hearing of some animals is also most acute, as, for instance, in the cat and the hare; and yet, they show no predilection for melody or harmony: but if this quality depended merely on a vivid perception of sound, the contrary might be expected: for, in man the sense of hearing is less perfect, and yet there exists within him an innate love of music.

The olfactory nerve (sense of smell) is considerably larger in the vulture, the pig, the horse, and the dog, than it is in man; and yet none of them evinces his discriminative power in reference to aromatic substances, or the various kinds of effluvia. Nor can a tact in the mechanical arts be dependent on the sense of touch; for there are many animals which possess a feeling more exquisitely sensitive than man, as, for instance, the cuttle-fish, the lobster, and the elephant. But who ever heard of these animals inventing any machine? Whilst it is an indisputable truth, that it is possible for man, if the faculties we are shortly to speak of, and constructiveness also, be well developed, to form mentally, and without hands, a machine, and accurately to describe its parts and uses.

If, then, we had no other faculties than the external senses, it is evident that all impressions made upon them must be evanescent, and could not be retained when the external objects which produced them were removed. On the contrary, however, we are endowed with faculties which preserve all the impressions derived through their agency. For instance, can we not recall the pictures of scenes after many years have elapsed? And do we not concentrate a vast number of objects and circumstances, which may often be reproduced involuntarily? Even in dreams we *see* landscapes, and seem to distinguish the colour of trees and flowers,—*smell* their perfumed exhalations,—*taste* the flavour of fruits and viands, —and *hear* delightful music. Before any of these reminiscences could take place, it is true that the *senses* must have been impressed with the various objects to which they refer; but without other faculties to take cognizance of objects and their qualities, all our ideas would have been shadowy nothings, impalpable and fleeting; a picture would have been a nonentity, for the next thing presented to the eye must have obliterated it.* Place a machine before you;—it is represented on the nervous curtain (retina) with the most perfect accuracy: let this object be removed, and another occupy its position,—there will be then a picture of the latter, whilst the former one is altogether effaced; in precisely the same manner as we see the reflected objects change places in the magic lantern. But, being endowed with perceptive powers superadded to this most perfect but passive optical instrument (the eye), we are enabled to remember a vast number of objects, and to recall them into fancied

* If any object is placed before an ox's eye within an hour after death, it will be accurately painted. Does not this prove it a passive agent?

existence, and to see them (in the mind's eye) either in combinations, or in their separate parts, so as to retain a knowledge of them, and be thus enabled to describe things once seen, as correctly as if they were still before us.

Phrenologists, therefore, reject the theory which regards the intellectual faculties as resulting simply from the exercise of the external senses; but we admit these organs to be essential to us in forming a correct knowledge of the glorious works of creation; and therefore Dr. Spurzheim ranks the senses as the first species of his genus reflective faculties, and designates them "the intermedia between these latter faculties and the external world;" or, as we called them, neutral agents, receiving information of things without using it, but sending such supplies constantly and immediately to the perceptive faculties, which take especial care to register all the knowledge thus procured.

CHAPTER VI.

PERCEPTIVE FACULTIES.

The order of faculties now to be described is very important to man, as it is by their aid that he acquires positive knowledge of all things in the external world. They may be divided into four different classes, each indicating its peculiar office.—1st. Individuality, which perceives the existences of all objects.—2nd. Form, Size, Weight, Colour, which specify the palpable qualities of all material bodies.—3rd. Locality, Number, Order, which mark their relation, and take cognizance of their habitats, number, arrangement.—4th. Eventuality and Time, which regard their phenomena and duration. There are others not arranged with any of these classes, and which have not been ranked with those mental qualities which perceive the various properties of matter.* Therefore we commence with Individuality.

Individuality.

This organ is situated above the roots of the nose, its seat in the brain being in the middle of the lower part of the anterior lobes. It takes cognizance of all external

* Sounds, which are perceived by *melody*, should in all probability be regarded as much a property of matter as Form, Size, &c., because sounds vary according to the sonorous nature of the substances which produce them, or the media through which they pass.

objects; as man, house, tree, rock, &c.; that is to say, it merely recognizes existence, and retains a knowledge of all things without any reference to their very different qualities. It gives us, for instance, a conception of a tree as a whole, the mere *substantive* itself, which is rather a generic phrase, and could with propriety be applied to any vegetable production with roots, ligneous trunk, branches, leaves, &c.; and therefore, when we discriminate a particular kind, we do so by distinguishing its qualities, as if it be thick or slender, high or short, &c.; or by some fact which may enable us to individualize it; as if we said, "I saw a tree: What tree? Why, it had red fruit upon it," &c.

This organ has been called *memory of things*, that is, all objects, persons, and things of the external world; and upon this principle it is evident that Individuality supplies man with materials for all positive knowledge. Without this faculty, he would have been constantly liable to inconvenience and suffering; he would not have known the difference between various objects, but by actual contact, even with the aid of all his other valuable faculties: and it would have been useless to attempt to reason upon the *qualities* of objects, if he had been ignorant of their existence. The mind would have exhibited precisely the same anomaly, as if a language were composed only of adjectives, without any substantives. Although Individuality is so essential to us at all times, yet it is sometimes annoying when too large and accompanied with moderate reasoning faculties: a person so endowed is tedious in minutiæ, giving a vast number of unconnected trifles, without any apparent notion of their irrelevancy or disorder.

On the other hand, persons deficient in this faculty, but still having strong intellect, may seize upon general

views; and yet, in endeavouring to communicate their opinions, they are apt to neglect the minor links, and their matter appears like vast isolated masses wanting some intermediate substances to associate them into a comprehensive whole. Artists who have a large Individuality pay great attention to details.

Form.

This organ is situated at the anterior part of the base of the frontal lobe (being separated by the crista galli), and consequently lies rather upon Individuality, at each side of it; and its size is easily marked by the width between the eyes. It is the first *quality* by which we distinguish objects: for instance, "I saw a tree: What kind of tree? Why, it was tapering and slender," &c. Hence the utility of Form in our studies of all visible objects, and for successfully copying all objects in the creation. It therefore aids the painter, sculptor, poet, orator, mechanician, and in short every one who has to delineate or describe the differences in created things.

Size.

It is obvious, that having correct knowledge of the different forms of external objects, we should still be deficient in marking another important quality of bodies, if we had not perceptions of *Size*; and observation proves, that the portion of brain situated laterally to the last organ, and which causes a rise in the eye-brow, bestows on man this perceptive faculty. The proportional difference in its developement is easily indicated by taking for a point the inner angle of the eye, and marking the relative fulness of the superior portion at

the commencement of the superciliary ridge. It gives us perceptions of distance and of size; is essential for perspective; and has been found large in artists who excel in the latter quality; also in sailors, navigators, geometricians, and astronomers. When this organ is deficient in artists, they do not paint the features in due proportion, but generally make them a mere caricature.

Weight.

Immediately adjoining the last organ is situated that cerebral instrument which gives to man perceptions of gravity or weight. The senses could not inform him of this quality of objects, as there are many things, both solids and fluids, which resemble each other, but which, nevertheless, are proved to be very different in their absolute or relative weights (specific gravity):—hence it was deemed conclusive, even by the reasoning of Spurzheim, that there must exist an internal faculty to communicate to us *ideas* of momentum or resistance, and this inference has been subsequently demonstrated by a vast number of facts.

There have been some interesting diseased cases, described in the Edinburgh Phrenological Journal, "of the loss of equilibrium," after fevers; and these cases render it probable that this loss of equilibrium is attributable to an affection of the organ of Weight.

Sometimes physiologists have deduced the function of an organ, by noticing what difference was to be observed in animals in which such organ was absent; and in studying the cerebral instruments, the same proceeding has been also adopted. We had the honour to communicate an interesting case of a deficiency of the organ of Weight to the above Journal, in which case a fine

healthy robust man, with excellent moral and intellectual faculties, was invariably affected with dizziness and a loss of equilibrium, whenever he went on the water. This peculiarity did not arise from any sense of danger or fear, nor was it occasioned by indisposition. He was inclined to fall the instant he was on water and felt its motion, and therefore, he used to overcome the sensation by lying flat on his back.

In what is called sea-sickness, there is a derangement of the nervous power by which we preserve our equilibrium (weight): the nausea is a secondary consequence. In this disease, there is a marked difference from inebriation; for in the latter case the sickness takes place in the first instance from the stomach being overloaded, and the loss of equilibrium is a subsequent result. Some time back, during a sea-storm, we noticed that persons with the *organ of Weight* small, became soonest affected; and, although many who had a good natural developement were also sick, the latter were the first to recover.

The organ of Weight imparts to us that quality of matter, by which we have perception of hardness and density, and all ideas which stand in modified relation to these properties, or which are contrary to them.

Colour.

The organ of Colour is situated next to the last organ, and, when large, causes the middle of the eye-brow to be finely arched. The arguments in proof of the existence of such a faculty seem to be conclusive, particularly when it is known that there exists a palpable difference in the capacity of persons, though equally endued with excellent sight, for perceiving colours; and it follows, as a consequence, that the eye alone cannot give us " perceptions

of colour," for, if it did, all persons possessing excellent visual powers should alike appreciate the harmony of colours, and if they were improperly blended, should experience a sensation of a disagreeable feeling,—an antipathy induced by the discrepancy of the unnatural tinting. But there are many, otherwise intelligent, persons, who are mentally incapable of distinguishing one colour from another; and yet they have such perfect sight, that without an effort they will discriminate the difference in the form and size of the smallest objects most accurately. The organ of Colour is, probably, one of the least essential of the perceptive faculties; but it is a source of our most refined pleasure, as it delights in the varied tints of the landscape, in the plumage of birds, the shading of flowers, the pencilling of shells, and in all the wonderful and varied combinations of colour with which all objects of creation are enriched. By this view it will be recognised, that a person with a large organ may exercise it without being a painter; but it is impossible that any one can excel in colouring, without having a good organ of colour.

Locality.

It is evident that man would require other faculties, besides those already enumerated, to enable him to make use of his acquired knowledge of things. Because, even after he had observed the numerous objects of the surrounding creation, and made himself acquainted with their modified difference of character as resulting from certain exterior qualities, such as form, size, comparative density, and colour; yet without the capacity of *locating* the various things which had been subject to his investigation, his thoughts would have had nothing of regularity,

but would have been like the fleeting and evanescent forms of passing clouds; and it would have been impossible for him to conceive the natural or accidental *relations* existing between the different objects of the universe on which he moves and dwells. But when his *Individuality* remembers any particular object, the other faculties which we have now to speak of enable him to bring before his mind's eye all the particular circumstances of their *relation*, *order*, and *number*; and in this manner he can render his mental pictures fac-similes of those scenes which have long since passed away, and which would have been long forgotten, had he had no other intellectual organs but those we have named, and the external senses.

The first organ of this interesting group is called *Locality*, and is situated on each side of, and a little above, *Individuality* and *Size*, taking rather an oblique position in reference to these latter organs. It furnishes us with a knowledge of locality, and local memory is a modification of its function; and is that power of the mind which informs us of the *relation* of one object to another. Hence it is of incalculable advantage to the landscape painter and the geographer, and to all persons who desire to remember the localities of countries or districts, or of the various objects in a landscape. It is said to excite a love of travelling, but this can only result from the desire it induces when large to see countries of which an individual may have heard or read verbal descriptions. Its *deficiency* is sure to perplex a person, by rendering him incapable of making definite ideas of localizations. He cannot place the things he has observed mentally before himself in their proper habitudes as they appear in their natural situations: the converse takes place whenever this organic instrument is large: every object is then placed

by the individual in its proper locality, and that with such accuracy, that any one hearing the mere verbal descriptions may form nearly as correct notions of the things described as if a visible picture had been presented.

Number.

This cerebral organ is situated at the outer angle of the eye, and enables us to form conceptions of any number of external objects. Although *Locality* recalls to our mental retrospection the relation of things impressed upon the brain through the instrumentality of our external senses and the other before-mentioned perceptive faculties, yet it is evident that we required another faculty to know whether the objects we may have observed were few or many. It is, then, the one we are now describing which gives perception of number; and hence calculation and arithmetical rules are but its modes of action. There requires scarcely any reasoning to prove that there is an *innate* faculty for Number, because even from infancy there is to be observed a marked difference in individuals, as to their perceptions of the *value* of numbers, a difference which is evinced by the greater or less difficulty in acquiring arithmetical knowledge. And in adults we may observe those who, without having had any instruction in this department, will frequently indicate a quickness in very complex calculations (off-hand, as it is termed), and much more accurately than other persons who have been well educated, and who have artificial rules for their guidance. It must therefore be evident, that the expertness of the former is attributable to a naturally strong perception of Number: and this capacity is invariably accompanied with a large

cerebral developement in the situation above described: hence both reasoning and facts demonstrate the innateness of this faculty.

Order.

In tracing the natural processes of the mind, or what we term a succession of thoughts on any matter-of-fact subject, it is very evident that man is endowed with a faculty to conceive the *order* or arrangement of the various objects of external nature as they exist, and to which he may direct his observations. When the mind of an individual has once recalled objects which have been seen, and of which he remembers the *local* relations, the mental process would have been defective, had he been deprived of the power of recalling the natural order in which the objects were presented to him. This is still more obvious, whenever the reminiscence refers to many things: there would have existed the greatest difficulty in systematizing our ideas, if we had not possessed the capacity of giving each object its proper physical arrangement. It is the cerebral organ (Order), situated between *Colour* and *Number*, which enables man to accomplish this. In contemplating the various productions of the earth, if he can recognise the fact of their appearing in order, this perception gives him some degree of satisfaction, even should he be utterly ignorant of the natures or properties of the things he is contemplating; whilst any disorder in the surrounding objects, if it does not give pain, causes, at least, dissatisfaction.

Hence it will appear that the use of the faculty of *Order* relates to physical arrangement, and differs altogether from what is termed logical inferences. This latter

distinction is made manifest by a single example; viz. that even the apparent disorders of nature may be traced to an unerring cause, which may be expressed, in other words, "that determinate results are the effects of some pre-arrangement." But this truth can only be ascertained by reflection.

Now, we find no proportional uniformity between the ideas of cause and effect, and physical arrangement. For, persons may have the organ of Order and be very precise and methodical, but by no means intelligent; and *vice versa*. When the organ is large, it disposes to system and arrangement; and when deficient, it occasions negligence and confusion, and an indifference about the manner in which things are placed.

Eventuality.

The knowledge of the existence of external objects, endowed with physical qualities, and standing in various relations to each other, is after all but a perception of certain entities; and although the beings or objects may be so diversified as to occupy the whole range of the visible creation, yet we should have obtained very imperfect knowledge, if our powers had been thus limited. The mental faculties which give us the various perceptions above described are eminently useful; but still they merely endow us with the capacity to perceive *existences*, and to distinguish them by some exterior difference. But the mere observation of an object does not indicate its use, or inform us of any circumstance which may naturally be connected with it. If Individuality observes many different animals or vegetables, there is simply a retention of certain general associations; these are rendered rather more available by the powers of distin-

guishing one species from another by its *form, size, colour*, &c.; but without *Eventuality*, we cannot become acquainted with the mode of action of any visible thing.

Eventuality is situated immediately above *Individuality*, and acts the part of mental curator; and not only urges us to know all things by experiment and observation, but carefully stores up all our impressions as connected with the actions, events, or circumstances either induced by objects from without, or the emotions and sensations from within ourselves; so that when an object is spoken of, or presented to us, whether in a tangible form or merely orally, in an instant this highly valuable faculty recalls all circumstances connected with it. Hence it is that the mere recollection of a word or a sentence enables Eventuality to reproduce a story or poem, &c., which seemed so far obliterated as to have been apparently forgotten. It is on this account that Dr. Spurzheim conceives, that to this faculty we are indebted for our knowledge of a *personal identity*, and the "association of ideas," so much commented upon and marvelled at by metaphysicians. When it is deficient, and Individuality large, there is only a desire simply to know the name of an object, as, "What is that?" But when both are proportionably developed, the following interrogatory would be sure to follow, "What is it used for?" &c. Hence its name—Eventuality.

Time.

This organ is situated laterally on each side of the last mentioned faculty, rather above Locality, and gives us a perception of *duration*, so that its sphere of activity is uncircumscribed: it takes cognizance of the period in which any circumstance might have occurred, the time

which is allotted to the first rudiment and existence of all things, and, although it cannot penetrate *eternity*, it gives us a notion of endless time. In its minor and more narrowed sphere of usefulness, it gives the pauses in literary composition, the *time* in musical sounds, and the stops in writing; and, lastly, to it we are indebted for all chronological details.*

Melody, or Tune.

The organ of Melody is situated in a lateral direction on each side of *Time*, and rests over the organs of Number and Order, which are both essential to musical ideas. The numerous facts which might be adduced to prove the innateness of this faculty would fill volumes, but we shall simply call attention to two or three.—1st. It is often manifested in infancy, thereby giving an indication that the *musician* must be born as well as the *poet!* No reasoning or metaphysical jargon can explain this precociousness, if such a faculty as Melody be denied. —2nd. That with the advantage of good professors, persons who have the organ of Melody small, however they may labour and persevere, will remain rather below mediocrity; for it should be remembered, that there is a vast difference between playing an air or an overture mechanically, and that degree of talent which enables an individual to compose the one or the other.—3rd. It is equally demonstrable, that musical perception cannot depend exclusively on the sense of hearing, as we have known those, whose hearing has been rather obtuse, evince not only much science in their compositions, but

* Dancing is beating *time* with the feet, and was practised in earliest times as a part of the religious ceremonies. This faculty also gives the *rythm* in poetical composition.

that kind of beauty which has insured them the most unqualified approbation from their contemporaries, and which will shed upon their works a lasting celebrity.

In reflecting on the various mental operations and their different degrees of intensity, great distinction should be made between the cause of each emotion or thought, and the subordinate aid furnished by the external senses. It is, upon this principle, an easy task to prove the innateness of the perception of Melody; for, the acoustic apparatus *passively* receives sounds, and although it is admirably constructed to modify them by the most curiously mechanical contrivance, yet it is evident that the ear cannot be considered as the depository of musical ideas, since the instant the air ceases to be agitated by the rays of sound, all impression, as far as the ear is concerned, ceases; yet, the recollection of the tones produced is equally vivid after the sounds have died away. The sense of hearing is affected in various degrees, according to the slowness or quickness of the successions of vibratory sounds which impinge upon its delicate organization; but the ear can only be considered as a passive recipient of sounds, and therefore, the harmony or discordance of tones must be judged of by the mind. If it were otherwise, every person gifted with good hearing should be musical. This will be still more apparent, if we reflect on the sources of tones, and the effect on the acoustic apparatus. The ear is similarly acted upon (as far as its different parts are concerned), whether the external disturbing cause be the pulsations of air set in motion rapidly either by something passing through the atmosphere, or the atmospheric particles being suddenly condensed by a solid body; or whether it be the sounds produced by the vibrations of a sonorous body when struck. But the ear has not the power of recalling such

fleeting tones, nor of judging of their musical or unmusical relations: both fact and observation confirm the truth, that the musical perception depends upon the innate faculty (Melody) which we are now discussing. —4thly. We may experience an involuntary activity of the organ of Melody* in delirium, insanity, and dreaming, in which states it is not an unfrequent occurrence that persons sometimes hear the most melodious sounds, and are enraptured with the ecstatic sensations induced by the vividness of their own musical reminiscences; and in these instances it is evident that there are not any sounds actually present. Therefore the phenomena must be referred to the involuntary activity of the *organ of Melody* itself.

Language.

As this organ was the first that was discovered by the illustrious Gall, it is always invested in the mind of a Phrenologist with a peculiar interest; for to this organ (as the nucleus of future observations on the elements of character) may be referred something not only important to the physiologist, but also of unbounded utility to the moralist, and to those entrusted with the education of children. The common error of the uninitiated in the science may be corrected in this place, "that *verbal memory* was said by its discoverer to depend on the eye." Now, as all the mental faculties are located in the brain, and as the anterior lobes rest upon an elevated shelf which forms the ceiling of the socket (containing the eye), it follows, that when the portion of brain identified as the organ of Language is large, and pressing as it

* In a similar manner we can recollect objects and places we have long since seen, but had apparently forgotten.

does over the centre and superior part of the bony chamber of the eye, it forces the latter forwards and outwards: hence, as we cannot examine the base of the brain, the eye becomes an excellent index or scale to mark the relative size of the seat of verbal memory.

That some men have a greater facility than others for verbally communicating their ideas, must be obvious to persons of even common penetration; and this difference may be observed in written as well as in oral composition. A strong verbal memory should not be regarded as the only characteristic of talent, for not unfrequently the most verbose speakers are the most shallow thinkers, and often profound men have the greatest difficulty to find words rapidly enough to express the vivid and rich succession of their thoughts. It is true, also, that an individual having a powerful memory of words, will sometimes mistake his retentive faculty for real knowledge; and he is more charmed with the varied sounds of a language, than instructed with the *ideas* which the words represent. Besides, such as have that easy address and that uninterrupted flow of words which gives them a facility in retailing the things said or written by others, frequently fall into the error of doing this so often and so parrot-like, that they ultimately conceive they have a right of property in the mental commodities of others, and they are apt to commit plagiarisms which can only be detected by one acquainted with the authors thus pillaged.

It is not my object to enter at length into the interesting enquiry, "Whether artificial signs influence our ideas in a direct or indirect manner?"* but as this introduction to the practical part of the work is intended to fur-

* See Dr. Spurzheim's able article on this subject in his "Phrenology, or Doctrine of Mind."

nish the teacher with general views of the mental faculties, we may be allowed to make some remarks on this interesting subject, premising, that it is now tacitly admitted that *words*, if merely acquired by rote, are useless,—nay, sometimes the source of a positive injury,—unless they are regarded as an artificial medium for communicating our various simple and compound thoughts. Two considerations present themselves for our investigation: 1st. That the child expresses his wants by signs (natural language), which are significant and universal, and this *language* precedes the oral one: consequently it follows, 2ndly, That when the ideas of a child are more complex, —when he has become acquainted with a variety of objects, and wishes his imperfect conception of things to be more accurate,—he either attempts to describe them by sounds of his own inventing, or he uses such terms as are applied to the objects of his curiosity by his parents or other adults with whom he associates. This self-evident fact is generally admitted to be correct in reference to the gradual unfolding of the perceptive faculties of the child; but still it is lost sight of in the subsequent routine of scholastic education: *hence the little positive knowledge acquired in the usual courses of intellectual cultivation!* If, however, the true value of words were estimated, we should endeavour to give the student a *knowledge of things*, and point out the uses of artificial signs to distinguish them: then individuals might have less verbosity, but more practical information, and not fall into the fatal error of storing up a vast number of words, and mistaking them for ideas!

It is obvious to all acquainted with the history of science, that whenever we acquire fresh knowledge of things, or new sources for reflection, we are obliged to *invent* terms to communicate these novelties; which is

a convincing fact that language is artificial, and strictly conventional; and whilst it must be admitted that a knowledge of our vernacular tongue is of the highest importance, yet we deem it possible to acquire it without the usual drudgery of poring over a grammar. Let a child know the names of all things it sees, and how we express their qualities and modes of existence, and this plan, combined with a free intercourse with intelligent adults, will practically point out the natural mode of arranging words to give the order of our ideas.

Words are, however, sometimes used without any precise meaning; as, for example, in allegorical and metaphorical descriptions; nor could the sense of either kind of composition be understood, unless those to whom it is addressed had some knowledge of the supposed resemblance: all the *primitive* languages abound with figurative expressions.

The mere acquaintance with many languages may be of little positive utility, unless an individual has stored his mind with real information; for, if the linguist be enriched with words, but barren in his ideas on all such subjects as NATURAL HISTORY, NATURAL PHILOSOPHY, and other departments of knowledge, his great stock of terms will only give him the distinction of being learnedly ignorant,—of being in possession of a great many artificial materials without being able to use them; words being mere sounds, unless they are invariably associated with the ideas they were intended to represent.

CHAPTER VII.

REMARKS ON THE REFLECTIVE FACULTIES.

We have now to investigate the functions of the cerebral instruments through which the reasoning process is manifested; and as the Reflective Faculties should in some measure regulate and direct all our feelings and sentiments, it is important that persons placed in the responsible situation of parents or teachers should have some information as to the period at which they are developed, and the time they usually take to acquire a proper degree of tone and maturity.* There is no calculating how useful this knowledge may be rendered, particularly during the greater part of that interesting portion of life usually devoted to education; for, considering how imperfectly the reasoning process is exhibited in the actions of children, we may feel it more imperative to make a constant appeal to their moral and religious sentiments; and the pupil having exercised his human motives, is prepared to appreciate the valuable services of *reason* for regulating his animal desires: this "best gift of God" will insure ennobling results, and render such an educated being useful and happy: his intellect will discriminate between the motives presented to him under unexpected circumstances, whilst he will be prevented taking a wrong bias by having

* These faculties are perfectly developed about the age of puberty, and indicate the greatest energy between thirty and forty.

always had his moral qualities appealed to, by whose dictates his actions will invariably be influenced. But in the present defective systems of education, the intellectual faculties and the moral attributes are too often separated, and hence the frequent failures and disappointment! Men thus trained are liable to be hurried on by impulsive feelings too often fatal to themselves and society: they rush with maddening career to various delusive pursuits, which sometimes prove injurious, but rarely useful. Some remain contented with ignorance; whilst others, with an impious presumption, will, in the endeavour to explain all things, not unfrequently out-reason themselves.

But when men shall acquire a knowledge of the mental laws (which include the laws of the reasoning and affective faculties), they will no longer confound whimsical hypotheses with the dictates of reason, nor mistake the wild speculations of fancy for the true principles of moral science; for, reason never ventures beyond the boundary of palpable objects, except to arrive by certain inductive processes at what may be deemed positive moral truths; as, for instance, to demonstrate the necessary connection between God and his providence,—a conclusion partly resulting from a survey of the harmony and beauty of the visible creation. Yet, even on this subject our reasoning can be only limited, inasmuch as we can scarcely penetrate beyond secondary causes. Thus, whatever may be the number of objects, or the variety of the phenomena which result from them, it is obvious that we compare them either with some others with whose properties or peculiar natures we are previously acquainted, or else we endeavour to trace them to something which they resemble; so that the process called *comparison* precedes that reflective operation which enquires into the causes

of things. We shall therefore just give some few general remarks on the separate functions of these two most valuable faculties.

Comparison.

When we have perception of the existence of objects and of their qualities; when we have become acquainted with the order of their arrangement and physical situations; and have informed ourselves of the circumstances in which such objects may be placed, and of the events which result from them; we afterwards become naturally desirous of ascertaining "whether there be laws which induce particular modes of action in all objects, so as to render the various events certain consequences of particular existences?" To obtain this knowledge we enter into another mental process, which we designate Reasoning. But, to reason, we must compare; and before we can compare, we should be acquainted (as far as perception enables us) with all the objects whose laws we desire to comprehend; or we should be like a workman ignorant of the materials he wishes to fashion. The process of ratiocination is two-fold: the first is performed by the cerebral part we are speaking of, and it enables us to institute a *comparison* whenever there are numerous things presented to us, whether the differences be positive or only apparent: or, if this reflective operation is directed to one object, the individual immediately compares that object with another to which it may bear some resemblance; but the *inferential* process (Causality) gives the cause of difference when there exists any.

It will be easily seen what an extensive sphere of operation this faculty possesses, comparing as it does our

feelings, sensations, and perception of things, as well as the various objects of the external world, and the diversities and modifications in the animal and vegetable entities, which abound on the earth we inhabit: so that in this manner we may be said to judge of all things by comparison. All *logical* inferences are strictly inductive; and what we term "laws of nature," are only certain positive results known and verified by repeated observations and experiments: hence the utility of *comparison*, whether applied to the facts we have ascertained, or to any new ones which may occur to us; because it reflects on the analogy or the difference between them, and in this manner enables us to know distinctive qualities; but the *cause* of the difference we acquire by the next faculty; viz.

Causality.

It is some proof of the correctness of the phrenological views as to the seat of the mental instruments by which we reflect and reason (Comparison and Causality), that the size of these organs is, *ceteris paribus*, a certain indication of the relative degree of the ratiocinating power: and it may be regarded as further evidence, that in IDIOTS these *cerebral convolutions* are more or less defective, *invariably corresponding to the comparative deficiency of their logical incapacity*. Facts so constant must be considered as effects of some determinate cause.

The special office of this logical faculty (Causality) appears to be very important. It investigates the origin of all tangible things, the uniformity of their individual or collective operations, and the changes which subsequently follow, with unerring certainty. It moreover takes cognizance of the *physical laws* which regulate the mathematical constancy of the form and properties of

crystalline masses, as well as the more vast and stupendous of the Creator's works; and it enters into the still more wonderful operations of the mental emotions and the causes of individual consciousness, and, finally, enables us to determine the accountability of man for all his actions.

It is through the operation of *Causality* that we reason, judge, and decide on the facts of the external world, and the various sensations produced by our innate faculties when they are excited. But its highest direction is in tracing the process of *cause* and *effect* through the whole range of creation, until, led by a chain of causes, we contemplate, with all the glow of moral sensation, nature's God!

The superficial may talk of chance, and of the plastic powers of nature; but, a knowledge of the laws by which inorganic substances and organized beings are regulated, shews the fallacy of such deductions. The real philosopher is distinguished, not only by a highly-gifted mind which he has assiduously cultivated, but by a humility which prevents him from using his wisdom with arrogance, because he perceives, how very little is the amount of man's information! On the other hand, he does not lose an opportunity for acquiring true knowledge; and what an ample field for enquiry do the diversified works of the visible world present! Let him examine the globe on which he dwells; the rich variety of vegetation on its surface; and the numerous kinds of animated beings in the water, the air, and the land around him, and he will perceive that all is harmonious and beautiful, furnishing irrefragable evidence of the most astonishing design and prospective goodness in the Creator of all things. Thus, when he examines the substances forming the earth on which he stands, he not

only recognizes the most surprising uniformity in its structure, arrangement of the strata, &c.; but he meets incontrovertible evidence of a benevolent providence, the various substances being so arranged as if to call the attention of man to their usefulness! For instance, wherever iron is found, there is in the same locality coal to smelt it and limestone to flux it!

The structure and uses of plants inculcate another and a satisfactory lesson to him who seeks, through his Causality, to trace the power of God in his terrestrial productions: for, besides the verdure and beauty of vegetation,—besides their uses as food for numerous animals,—the vegetable kingdom is destined to pour off the great vital principle (oxygen)* into the atmosphere, and thus constantly supply the daily waste drawn from the surrounding reservoir by every living thing that breathes. What a contrivance of a Divine Mind! Turning to the animal kingdom, still greater wonders are presented,—myriads of created beings of endless forms and size, from the infusorial animalcule to the more perfect order of worms, reptiles, fishes, birds, and mammalia,—all of them suited to particular elements and localities, and endowed with faculties commensurate to their wants. And lastly, when looking beyond the earth, the mind of a person thus informed contemplates the vast expanse around him studded with countless worlds; and whilst his thoughts become elevated, his moral and religious faculties manifest their most rapturous and refined sensations, and he exclaims with the

* The atmospheric air is composed of *oxygen*, nitrogen, and carbonic gas; the first being essential to sustain the breathing of animals (vital action), but the two last being destructive to life. But these phenomena are reversed in the vegetable kingdom, as the *food* of vegetables is the very gas (carbonic) given off by animals during respiration!

Psalmist, "Lord, how wonderful are thy works! in wisdom hast thou made them all!" Let, then, the friends of mankind educate all the faculties, for it is impossible to have such exalted notions of our Maker if we be ignorant of his works.

CHAPTER VIII.

MORAL AND PHILOSOPHICAL REFLECTIONS ON THE PRECEDING SECTIONS.

Before entering into a discussion of the practical utility of the science of Education in the most extensive meaning of the word, we cannot resist offering a few general remarks on the moral views suggested by a consideration of the preceding sections.

Who could read the brief analysis of the cerebral organs, and assert that Phrenology is unworthy of attention? A mere glimpse of the manner in which the mental faculties are collocated, will shew that the science is too perfect to be speculative, and too illustrative of the mental operations, to be the mere invention of a human being: like all the works of God, it bears indelible evidence of comprehensive design, and constant harmony. It is however a truth not to be evaded, that folly and ignorance are too prevalent to allow men to abandon the usual ephemeral trifles which amuse them and to seek the satisfaction and lasting pleasure which knowledge confers, particularly when directed to the contemplation of the excellence of their own organization. The mental operations, like those of the circulation of the blood, and the process of digestion, may, as long as their laws are obeyed, proceed on their undeviating courses from infancy to old age, although the individual may himself be ignorant of these wonderful contrivances of his own

organic economy. But, as the instruments of the mind and those of the body are liable to temporary or permanent derangement whenever their laws are violated, it would be well for all men (even in a selfish point of view) to study their own organization, and then they would ensure calmness of mind and bodily ease, and would be led to adore the Almighty Mind, by appreciating the noble gifts which He has given them.

Presuming that those to whom these pages are addressed have made themselves acquainted with the natural means to be employed for properly developing the bodily organs, we may premise, that the *instruments of the mind* (the brain) are subject to similar laws; nor can these, any more than the former, be violated with impunity. The muscular and nervous systems increase in energy of function in proportion as they are nourished by their physical stimuli, and cultivated according to their own inherent laws; and the faculties of the mind become relatively more intense and energetic, when the moral stimulus, suited to each particular organ, is used as a means of exciting it to a healthy exercise. Instead of this knowledge urging the thinking being to the brink of scepticism, it is more likely to call back the fugitive, and save him from the frightful chasm of a cheerless infidelity; because it affords him the most convincing evidence of his real nature and moral accountability, whilst his reflective faculties develope the various relations of man, and the great capabilities which are bound up within him, giving him an encouraging assurance that, when he conforms his will to the divine laws of his Creator, physical, moral, and intellectual, and regulates all his actions by the higher dictates of his nature, he will be virtuous and happy, and not suffer the inconveniences of ignorance, vice, and immorality, by opposing

his own preconceived opinions to the natural laws, and thus acting from caprice, instead of being guided by true knowledge.

Fatalism of Actions.

It would be too great a tax on the time and patience of our philosophical reader, if we were to attempt a particular and minute refutation of all that had been advanced against Phrenology by persons ignorant of its principles, who have in most instances exhibited more zeal than common sense, and substituted mere gratuitous assertion for rational argument; or who have speciously misstated our opinions, and confounded the *abuses* with what we state to be the *fundamental uses* of the different mental faculties, and thus, by implication, charged us with their own moral and philosophical heresies. Some have had a presentiment of their own logical weakness; but then they did not hesitate to appeal to religious prejudices, vociferating those watch-words of persecution in all ages—Materialism! Fatalism! Atheism! What can be the motive of such unseemly and unjust proceedings? Why, pride, vanity, and stupidity! Because the very men (Phrenologists) against whom these denunciations are directed are endeavouring to render mankind better, by obeying the natural as well as the revealed laws; and if they be in error, surely errors so venial should meet with more ingenuous treatment! It appears to be highly prejudicial to the cause of truth, that the *odium theologicum* should be hurled at even the scoffers of religion: because persecution and unkindness will not convince or soften those who are ignorant, or perverse. To shew the salutary influence of those doctrines which purify the heart, it is essential that the

professors of them should live as patterns of integrity, candour, prudence, and intelligence, and prove, by actions as well as words, the humanizing and dignifying influence of a mild and true religion.

We make no apology for this digression, as it is enough to excite in the mildest man something like a moral indignation, to hear or read, "that Phrenology is likely to be an apology for crimes;" when it is obvious that its philosophical principles tend to destroy the origin of all moral excrescences, by applying the natural caustic to the most exuberant parts, instead of allowing them to grow rankly luxuriant, and then empirically attempting a remedy.

But the charge of its inculcating the Fatalism of Actions demands some serious consideration, for it would be the most palpable absurdity in the Phrenologist to advocate the necessity of education, if men were bound to follow the impulses of certain natural predominant faculties. Why, in such a case, attempt to restrain them by exciting the morals and informing the reflective and perceptive powers? It is astonishing how much misery, persecution, and bloodshed have been occasioned by the use of some *words;* as, for instance, the mysterious word Fatalism! It seems to exert a talismanic effect on weak minds: they repeat it timidly, then reiterate it, and are startled by the frightful sound it makes. Such persons never think what it really means, and that it has been applied to many very different doctrines. We will instance a few:—1st. Persons who asserted that all things existed by necessity, or that all objects—mineral, vegetable, and animal—possessed within their own elements the means of self-combination, were called Fatalists!—2nd. There are vast numbers (particularly in the East) who believe

that all actions, events, and casualties are predestinated; and these persons are in the strictest sense "Fatalists." There is a third kind of Fatalism, which differs altogether from the two latter, inasmuch as it merely inculcates that all effects, which take place with an invariable constancy, must be dependent on immutable causes. This last kind might be thus illustrated: a man ignorant of the laws of vegetation should observe a grain of wheat, accidentally placed by him in the earth, subsequently grow up a perfect plant: he would be led to suppose that the single grain contains the ear and all the subordinate parts: he repeats the experiment, and the plant grows again, thus continuing to return for his single grain a full ear containing many grains, as long as he obeys all the conditions which nature requires for the process of germination; such as a healthy seed, a good soil, and the proper season for planting. He would feel assured that this process, being constant, was to all intents and purposes a law of nature; that is, an uniform effect resulting from a determinate cause. Therefore, if this be Fatalism, then Phrenology, being equally dependent on certain laws, like all other parts of the works of God, must be also included under that term. It will be shortly noticed how absurd even this admission would be, if some caviller should construe it into a Fatality of Action; particularly when we shall prove that the reflective and moral faculties, when properly cultivated, give us the power of chusing between different motives, and must not be confounded with the automatic functions of the lungs, heart, liver, stomach, intestines, and other vital organs, which act without any individual consciousness, and many of them quite independently of volition, continuing to perform their functions with the greatest

regularity during health, and so involuntarily that many are totally ignorant of their having such instruments.* And if we direct our attention to another part of our economy, the nerves of sensation, volition, and respiration, (nerves originating in the spinal column), although they perform their varied functions with strictest constancy during health, yet they are more passive in their action than those of the external senses.

But the external senses, although they are passive recipients of various impressions, are nevertheless so much under the influence of our voluntary powers, that we may direct them to certain objects, and use two or three of them simultaneously; as, for instance, in playing the piano-forte, when the senses of touch, hearing, and sight are all exercised together. Or, if we *hear* a sudden noise, we can turn our *eyes* to examine the body from whence it emanates, and *feel* it at the same time. In these, and similar instances, it is the *intellectual faculties* which *use* the *senses;* and we shall presently find, that they can also exercise a certain power in correcting any erroneous impression which may be experienced by a single sense; as, for example, when we see objects through some imperfect medium, so that they are diminished or magnified, we ascertain the illusion by examining them with the hands (touch); but in such an instance it is the *mind* which induces the experiment, and not the hand acting passively and automatically.

Now, it should be remembered that there are certain specific differences between the feelings, the moral and religious sentiments, and the perceptive and reflective faculties; and although those of the affective class are liable to involuntary excitement, yet, as the mental faculties

* The heart ceasing to act a minute would produce death.

can correct erroneous impressions of the external senses, so the reasoning powers may invariably correct the affections, or prevent them from manifesting specific actions, particularly if the whole brain has received proper cultivation. It appears to us, that the anti-phrenologist, by denying the plurality of the mental instruments, is driven to a great extremity on the subject of Fatalism of Actions; for, if the brain be an unit, but *one* faculty can use it at a time; and whatever that may be, it must lead to some determinate action. Then there is another difficulty for our opponents: how will they explain the *indecision* which sometimes makes an individual hesitate between two or three or more motives presenting themselves at one and the same time? This latter very common occurrence affords a refutation of the doctrine, that *necessity* urges us to particular actions; and the *rationale* is to be traced to the following facts; viz., that the mental faculties have certain grades of importance: the *propensities* give us what are called the domestic and social feelings, and if they act without proper controul, are likely to lead to overacts of selfishness; and, therefore, to avoid these consequences, we have bestowed upon us faculties* which impart to us motives of a nobler and more refined kind, which instinctively suggest ideas of our relation to God and our fellow-creatures; and we have super-added, intelligence to act from their purer dictates; and whenever we neglect the guidance of our highest faculties, this negligence results from the errors or the want of education.

Nor is it a matter of indifference which class of faculties is exercised, any more than the consequences of that exercise are accidental. It should be remembered, that

* Moral and religious sentiments.

the brain, composed of these diversified faculties, is nourished from the same material (blood) as all other parts of the body; so that, if the whole is early and properly exercised, general activity may be expected; and if particular organs are cultivated, they will increase in the ratio, and manifest a corresponding intensity of function. The criminal who has acted from infancy under the influence of selfish propensities, and whose higher faculties have never received their proper culture, deserves our pity; but yet we could not have expected the contrary from him: "can we gather grapes from thorns, or figs from thistles?" Let us not then confound the aberrations from the mental laws, and the penalties consequent upon their violation, with the want of a natural freedom of will, which the proper use and application of our intellect and moral sentiments confer upon us. All persons admit the deteriorating effects of crime, and the noxious results of bad example; and yet, when the causes of these violations of the natural laws are explained, it is, forsooth, either impious or downright Fatalism! But our answer as Phrenologists is, it is truth; and, like every other truth, is confirmed by experience and observation, which uniformly prove that the victims of passion, lust, and crime of all kinds, were not bound to act so; and if their organization induced such acts, they were either abandoned to unrestrained propensities in early life, or were idiotic or insane; but in no healthy brain could such baneful results have taken place. And here we would guard against any misconception, by stating that a healthy condition of the cerebral instruments depends on their receiving proper cultivation, and on their being exercised in due harmony. It will be obvious, from the preceding observations, that we accurately distinguish between the agent and the actions; that man has a free choice, and

consequently is responsible for the manner of using his prerogative; that good follows every proper direction of his moral nature; and that whenever he acts contrary to the laws of mind, he cannot do so with impunity; but whether the act be premeditated or involuntary, every violation of the harmonious arrangement between the faculties of man and the moral government of God entails upon the principal actor the penalty assigned to his transgression. This position may be thus simply explained and illustrated:—If two men, differently organized, commit a similar offence, the moral or physical punishment which may follow will be the same as regards the immediate consequences, although somewhat modified in intensity. Suppose, for example, that one of these men be nearly idiotic, and possessing strong irascible feelings, but of course wanting intelligence to control them, and that under some sudden or extraordinary excitement he murders a fellow-creature; and suppose another man, with very fair natural talents and moral capacity, but who from infancy has been indulged by parents unheeding of the consequences, and that instead of his higher motives being constantly appealed to, his feelings have been allowed an uncontrolled mastery over him: could we expect that he would manifest any thing else than selfishness? Could we anticipate that the more matured being,—who had thus at such an early period preferred his dark and grovelling animal desires to his human ones, until he had become a passive slave, bound by the fetters which time and habit had forged for him, and so sunk in sin that he had lost a relish for moral pleasures,—would ever firmly resist the fury of evil passions, or hesitate (under some sudden impulse) even to take the life of a companion? The catastrophe in both these supposititious cases being similar, we naturally en-

quire whether the moral turpitude is the same; but reason and our criminal laws decidedly make a great distinction between them. Although death is, in both instances, at first regarded as the legal consequence, the motive which led to either act is enquired into, and the moral responsibility of each investigated, when it is found that the one had scarcely a gleam of intelligence or moral sensation, and, therefore, not being able to discriminate, he is deemed a being without moral liberty; just in the same manner as if a blind man fall over some valuable piece of furniture and break it; however we may regret the loss, we do not blame him for an accident occasioned through a physical defect, as we should do another person endued with good sight, and who either wilfully or from carelessness committed a similar fault. Now it is very obvious that there is some analogy between the latter position and the former examples, as the catastrophe in both instances was similar: the one case contemplates the violation of a divine law by two very different agents, and the other describes what is commonly called an accident as occurring under very opposite circumstances; and we infer that there are degrees in the personal accountability in both cases. The two persons who may have destroyed human life are not, even in the eye of the law, regarded as equally culpable, and this distinction between them is in accordance with reason and religion; for the moral turpitude must be greater in one person who was intelligent and might have been better, than in another who had not intelligence to control his very strong propensities, and therefore could scarcely be expected to act otherwise than in subjection to his animal selfishness. It is only by being able to draw the proper line of demarcation in applying the principle of man's free agency, and his consequent responsibility to different

circumstances, that we can fully understand the distinction which must sometimes be made between actions apparently the same, or which, in their results, really are the same; for, as regards the motive, it is obvious that in even a moderate organization the power of choosing between very opposite sensations exists, and therefore that the individual possessing that power cannot be said to be blindly urged to the perpetration of any specific action, and consequently is not to be regarded as the innocent victim of some overpowering necessity. On this principle, although death resulted both in the case of the idiot and of the other person giving way to passion, yet the moral delinquency was confined to the latter case only.

It will appear almost a work of supererogation to insist upon the evident truth, that the brain is under the organic laws, as well as every other part of our curiously-contrived frames; that it must be perfect in all its parts before the whole of its functions can be manifested,* and that the degrees of moral power and intelligence are differently experienced in proportion to the size and perfection of the cerebral instruments; for this is precisely as if we asserted the generally-admitted fact, that the eye must be correct in all its various parts before vision can be so, and that if the instrument is congenitally weak or defective, sight is imperfect, or does not exist at all. Yet should the friends of man rejoice at Gall's discovery, which places a vast power in the hand of the tutor; because if judicious treatment will improve a weak sight, so also will proper exercise and moral nourishment strengthen the cerebral instruments. Surely then it is important to know them, and

* Witness an idiot's brain.

to comprehend their laws before we attempt to make them available for practical purposes.

All, then, that the Phrenologist affirms of the brain and its functions resolves itself into this truth,—that the mental laws form no exception to those unerring arrangements which the Almighty Mind hath imprinted on all the other numerous objects of His well-harmonized creation! And without this universal harmony, this uniform fixedness of consequence, as the mere effect of a pre-existing intelligence, we should not be enabled to speak of a determinate and all-ruling cause, so that the boasted reason of man, which is now directed to investigate the nature of causes, would have been constantly pursuing shadows fleeting and evanescent as his observations. The stupendous universe and all its accordant parts must have appeared the results of accidental circumstances, had we not had forced upon our notice the invariable connection of cause and effect, from even the form of the most minute atom up to that of a mighty world, and in the simplest mode of existence or of matter, as well as in the most complete objects. We never doubt the laws of vegetation or animalization, because we know that nothing is adventitious; and surely, in reference to our own *minds*, we must reject the absurd anomaly of supposing that the mind is the only emanation from God devoid of any fixed laws,* because by observation and experiment we perceive that, in it, as in the undeviating order of the material universe, there are a harmony and a constancy of action which pronounce in the most emphatic language—THERE IS NO SUCH THING AS CHANCE! Can this knowledge dispose us

* "Laws of nature" can only mean, that consequences are always to be predicated, since they are owing to the operation of unalterable causes; therefore a law means simply an uniform effect.

to the commission of crime, or induce us to apologise for acts of folly? No: it rather tends to awaken our highest faculties, and to call forth a silent thanksgiving to that Fountain of all goodness, power, and wisdom, the eternal and immutable Great Cause of all things, who pronounced His creation to be "good."

Let those who possess an intuitive love of truth reflect on the great distinction which the science of Phrenology enables us to make between the innate tendencies and the actual manifestation of the desires which they induce, and on the resulting inference that there does not exist any thing like predeterminate actions, but that these are the effects of circumstances tending to excite, in various degrees, our different faculties. In the man of little intelligence or moral capacity, any circumstance may so affect his mere animal desires that he feels an urgent inclination to gratify them; whilst in the nobler organized being similar sensations may arise under similar situations, but the moral powers will be sufficient to control the exhibition of such emotions: hence, although the desires be equally powerful, yet the actions they suggest are avoided. This truth is, in point of fact, of great value in moral education: we might tell a child that, as it has the power of turning its head away from a scene of cruelty, so it may avoid looking on any thing degrading to a human being, or doing that which must in some measure lessen its moral rank; as, for example, concealing the truth.

It must be obvious, from these general views, that mental health can only be obtained by exercising all the feelings, sentiments, and faculties, both perceptive and reflective. And if, from ignorance, we neglect the proper means for the consummation of such a desirable end, we still must suffer the same penalty as if our

aberrations had been voluntary: for, the consequences of violating the laws of mind are as certain as those which result when we injure any of the corporeal organs, in the first case producing those mental diseases—follies, faults, and crimes; and in the second—lassitude, debility, pain, and suffering, in all their various degrees. But, there is a great and philosophical distinction between that fatal certainty of the punishment which follows each infringement of the mental laws, and the doctrine of the Fatalism of Man's Actions. Nor is the justice of the Creator impugned by this view of His moral government, and of the arrangement of our innate powers, any more than the wisdom displayed in the harmony of the physical laws is questionable, because wilful ignorance and voluntary debasement sometimes tend to a fatal loss of life and property;* and if man, in his folly and presumption, will bid defiance to these truths, he must continue to suffer the penalty.

Then let me urge the friends of mankind to reflect on the above observations, and remember that if the higher faculties are early neglected, they must become enfeebled, and that the lower propensities, from having received overmuch indulgence, become more and more importunate, and more powerful to command immediate gratification, ultimately inducing the following consequences, —mental disquietude, bodily infirmity, premature old age, and a cheerless and miserable end! Whilst if an opposite system be adopted, the judgment will be acute, the morality the most ennobling, producing constant gratitude and veneration towards God and love to our

* The loss of the Rothsay Castle steam-vessel,—which was not in sea-trim, and which was commanded by a person in a state of intoxication,—will be remembered, as furnishing a commentary upon the text.

fellow-creatures, and securing to the individual a reflected blessing,—serenity of mind, a vigorous body, a happy old age, and a calmness and joy at being able to look back on the past without regret, and on the future with a lively hope of eternal happiness! But, before these invaluable privileges can become the common property of mankind, those persons who really may influence the moral and intellectual state of society, must think for themselves, must rationally investigate the doctrines, and properly appreciate the discovery, of the illustrious Gall; and, finally, must act in accordance with the laws of mind which that discovery has developed. To be led by prejudice; to place themselves in a sort of mental leading-strings; to hesitate, and crawl, and not dare to stand up in the erect posture of intelligent man; to sympathize with the false alarms of those contemptible creatures who take a peculiar delight in keeping "children of a larger growth" under subjection to the nursery discipline;—such conduct on the part of those who have it in their power, from the mere station which they occupy, or even from their intellectual capacities, to influence society either for good or for evil, is calculated to paralyse and defeat the most earnest endeavours of the few enterprising individuals who are willing to devote themselves to the labour of benefiting mankind.

CHAPTER IX.

GENERAL REMARKS ON EDUCATION.

With a knowledge of the number of the fundamental faculties of man, and of the organic and phrenomatic laws which directly or indirectly affect them, and having a rational view of moral liberty, we may proceed with that intricate but most interesting enquiry, as to the means of practically using this knowledge for a sound system of moral and intellectual education; and if we constantly bear in mind the zoological rank of man, we shall avoid many of the errors of preceding systems,—errors which are inseparable from the partial cultivation of the mental faculties. Nor could we expect any other result, when the teacher himself, like a purblind man, had but a glimmering light to guide him, scarcely enabling him to pursue his daily task, and quite insufficient for any extraordinary situation in which he might be placed: a difficulty referable to his ignorance of the natural history of man, and to the prevailing habit of leaving too much to an uninformed experience.

It is universally admitted that the feelings and sentiments require cultivation, yet ever since the dawning of civilization they have been too much neglected, evidently because there existed no principle adapted to promote positive improvement, and because it was not known that those faculties were located in the brain; so that when certain plans failed to produce a desired effect,

(plans which were suggested by caprice), however the teacher might be surprised at the event, he was as ignorant of the cause of the failure as the pupil. But had the great book of nature been always consulted by others as it was by Gall, that faithful oracle of truth would have thus dictated a reply: "To comprehend the nature of the mental faculties, observe men under every phasis of character: the extremes will give a knowledge of the elements from which is formed the endless variety of character among human beings." In this manner may every teacher obtain positive data and ample resources to guide his judgment under any circumstance where human motives are to be informed or modified. With this correct information on the philosophy of mind, other consequences may also be avoided: the mortification of many a parent's pride or vanity may be prevented; because if a boy's organization does not enable him to learn with facility subjects which the teacher most prefers, it may be easily ascertained by the means now suggested, that he is fitted by a certain authority (nature) for some other study quite congenial to his mental qualifications; and, lastly, the moral education will also be placed more within the power of teachers or parents by a knowledge of the true principles of human nature. We shall therefore devote the greater portion of the ensuing pages to this very interesting subject; premising, that all we hope to achieve is something negatively advantageous, namely, to prove the necessity of attending to certain moral considerations in the formation of character. Far from expecting to give a finished theory upon a subject so very fertile as man, we can but aim at convincing the candid that the science of Phrenology is practically available for correcting any excessive action of the feelings, and of stimulating to more activity the moral sentiments when only

weakly manifested. We earnestly request consideration to this important and most interesting subject; being certain that the moral diadem which should grace the noble brow of man has its lustre too often dimmed by the untoward influence of circumstances that might be avoided. Children, for instance, are frequently left to the guidance of servants, or they are heedlessly turned over to the charge of persons sunk into a state of mental lethargy, and who think that in simply telling their pupils to do certain things, they perform the whole duty of teachers. But would the mere talking of food either appease the hungered individual or nourish his body? We must, at an early period of infancy, commence the task of education by invariably endeavouring to excite and cherish the aspirations of the higher faculties, and avoiding any acts, either positive or negative, that might encourage a tendency to that grovelling disposition which renders the individual a victim of strong feelings, crouching under the tyrannic influence of the animal propensities.

It is evident, if the preceding remarks be correct, that all errors of conduct, and indirectly all mental and much physical indisposition, are attributable to partial or injurious cultivation of the mental faculties. To comprehend this proposition philosophically, we must unshackle our opinions from the bands of early prejudice with which they have been bound, by endeavouring to trace the causes which have hitherto overspread the world with misrule and immorality, and which still operate so forcibly as to render the progress to a better state of things tardy and uncertain. Shall the hacknied answer content us, that a secret destiny admits evil that good may be deduced therefrom? Would it not be more consistent with our pretensions to reason, to seek for other and more obvious sources of the evils which vitiate

the moral health of society? This has been attempted in the former part of this work, in which the various elements of human nature were briefly analysed, and the secret springs of all motives were thus laid open, shewing on positive data the causes which operate in producing such a vast contrariety of character; and in which, too, it was plainly demonstrated, that no single faculty can be charged with being bad, although each may lead to evil consequences if allowed an extreme activity. Is not this important information to the parent and the teacher?—and does it not prove that all errors which exist in the moral world are referable to man himself, and that the means of his redemption from a mere animal existence are also planted within him? Clear and consolatory as are these views, they have been, hitherto, only dimly recognized, although a host of venerable men, as legislators and moralists, have endeavoured to reduce the sum of moral evil by inculcating rules of conduct for the preservation and improvement of individuals, and by framing laws for the safety of the community; but many of their ordinances and schemes have proved nearly as mutable as the heads that dictated and the hands that inscribed them! The philosopher who calmly reflects on the cause of the instability of human institutions, will perceive, that it necessarily implies a fatal ignorance of man's real nature. If the mental laws were strictly comprehended, their results could be predicated with as much certainty as are those of the physical universe; but having been heretofore deduced from mere vague theory, however apparently consistent, they have been found worse than useless when tested for practical application.

The theory of mind advocated in these pages has a more solid claim upon our attention; for, instead of

being suggested by the imagination, it originated in observation upon men, and its merits will be unimpaired by time or human weakness, because it is based on a foundation of facts.

First, We should recollect, that observation proves that man must have a perfect brain to manifest all the mental faculties. Secondly, That these faculties become inactive if over-worked, or torpid and dead if neglected; and that, as in the case of the bodily organs, a certain degree of exercise is essential to produce in the brain that integrity of action which we call sanity. Thirdly, That the brain of an untutored peasant, and that of the most profound philosopher, have the same number of parts, but that the one, from either not having been educated, or from improper cultivation, rises little higher than the animal; whilst the other, being stored with the knowledge of God, his providence, and his works, seems elevated into a state of being more dignified than his own species. Fourthly, It is palpable, that the instruments of the feelings (occipital and basilar regions) are larger in proportion than those which subserve to the moral and religious sentiments, and consequently influence our actions most when unmodified by judicious education. And, lastly, it is a fatal truth, that the feelings may enlist the intellectual faculties, and in this manner render the individual more injurious to others. Who will deny that the educated sensualist is more pernicious than one whose education has been neglected? The former may glide into our confidence by a speciousness of manner, but instil a malignant poison, at once virulent and destructive; whilst the latter disgusts by his coarseness, and is therefore avoided, excepting by those equally degraded with himself.

Further, it must be obvious, that if it is judicious to

restrain, by negative means, the levity of the feelings, we should also use positive means for their guidance: the feelings are blind and insatiable, and require to be directed by reason, and mollified by the dictates of morality. Who has not observed how often the passions or propensities, when powerfully excited and uncontrolled, have hurried even the cultivated individual to the verge of a frightful precipice, and, like the raging elements in a storm, have precipitated the hapless wretch into the lowest gulph of infamy and vice!

What stronger inducements could be urged to prove the necessity of teaching the means of self-government? Let us, then, pursue the noble task of inculcating the truths of this science, which must render all men better, and pity the mental blindness of those who, whilst they would readily avail themselves of the pretended remedies of boasting empirics for curing some bodily disease, can affect to deem it wrong to enquire into the merits of a science calculated to heal or prevent moral diseases; thus evincing an intellectual obstinacy commensurate to their credulity and their ignorance of the various natural laws of the Creator.

Surely it must be important, in educating man, to know the causes of mental phenomena, to discriminate between indolence and incapacity, and to distinguish between those actions which may be caused by an accidental circumstance, and those which flow from the predominant motive of an individual. Besides, information on a subject like this, which speaks an intelligible language to a man of even ordinary capacity, will furnish him with powerful means for training the infant mind: he may by constant appeal to a child, who shews a mischievous tendency, awaken within it the latent principles of morality, and thus make it feel responsible

for all actions, particularly if this divine truth be inculcated, "that happiness is experienced by men in proportion as they obey the laws of the Creator."

Nature is the best instructress, and her advice is simple and efficient. Commence your instruction at the dawning of *consciousness*, when the innate faculties begin to manifest their presence. It is then they require the culture of experience, and the warm and genial influence of a moral atmosphere, if we desire to "train up the child in the way he should go." But, on the other hand, if the child be abandoned to empirical treatment, the faculties may grow wild and luxuriant under even the most learned teachers, as it is more than probable that the animal propensities, which are naturally the strongest, will gain an ascendancy, and render the individual a slave of passions baneful to himself and injurious to others. Then how much personal misery would be spared, and what positive good might be added to the general stock of the common-wealth, if Education were conducted on the basis of the real nature of man, in which case the feelings would never be appealed to as motives for actions, but would always be addressed in combination with moral motives: then every action would be conformable to the laws of justice, piety, and love, and to the dictates of reason. An education of this kind would fraternize the human family, and kindly feelings would be mutually engendered, regardless of such accidental distinctions as complexion, country, or faith. It must be confessed that nature has made no difference in the elements of human character, so that there exists an universal code for moral and intellectual Education, and the same principles must be everywhere adopted for the developement of the innate faculties of the whole species, without any modification to suit the opinions of a par-

ticular tribe or nation. Is it not lamentable, that upon a subject of such vital importance the opinions of men should still be left to the most vague and speculative hypothesis? It is to such *turbid* sources that all preceding difficulties must be traced, some writers insisting on natural differences among the races of mankind, whilst others deemed many of the faculties factitious, and as resulting from circumstances strictly conventional; one author elevating man above all corporeal influence, whilst another has degraded him to mere animal existence. Amidst such contradictory testimony we cannot do better than take for a guide the authority of nature, which has been so admirably developed by Gall and Spurzheim, and by adopting whose enlightened views of man, we may educate the embryo faculties with certainty and advantage.

THE FEELINGS.

The term EDUCATION, in its most comprehensive meaning, signifies an observance of all the natural laws which affect the growth of the body,* or which tend to develope or restrain the mental faculties. We shall restrict the following remarks to a consideration of the best plans for effectuating the latter purpose.

It has been already stated, "that mankind are actuated most by their feelings;" and although we do not suppose that the feelings will cease to exert a powerful influence over character, yet we may anticipate that they are to be restrained from manifesting various abuses, and so regulated as to become positive sources of refined gratification and usefulness. For this purpose we must watch a child from birth, and mark the periods at which

* As food, exercise, temperance, cleanliness, light, warmth, &c.

each propensity or feeling manifests its presence: like the skilful botanist, who knows the different seeds and their seasons for fructifying, we should patiently observe the various mental phenomena, so as to assist or retard the growth of their organic instruments (brain) as experience may dictate.

When the child is brought into the world, all his powers are immatured, and the external senses are the first which acquire their perfect functions; but even when they are nearly matured, it is some time before the child exhibits an individual consciousness of their uses or presence. The eyes are vacant, staring round on objects without the slightest indication of intellectual recognition or vivacity; and although sounds strike the ear, they neither excite ideas of harmony nor dissonance. But this automatic state is brief; the child soon takes notice, and distinguishes its parents or nurse from strangers, and this mental perception is evinced by the smile which gives to the infant features a different expression from its vacant and uniform monotony.

Among the mere feelings, it is obvious that in the child *Adhesiveness* is early excited, and very active, inasmuch as the infant nestles its head on its mother's bosom, and seems gratified when affectionately pressed by her. This feeling (Adhesiveness), if properly cultivated, might be rendered a powerful means for enforcing rules of conduct in after-life. Some mothers, of strong natural intellect, have perceived how they could avail themselves of the *attachment* of a child, and have found it to be an excellent auxiliary in stimulating the higher motives of the human mind. There is also a practical fact, which may be stated in this place, "that the organ of Adhesiveness is contiguous to Combativeness and Destructiveness, and that when the first is any way pained, it communi-

cates the unpleasant affection to the two neighbouring feelings, and excites the anger of the child."* If we scold a child, for instance, after we have fondled and caressed it, it will break out with gusts of passion and screaming; nor can it be pacified until it is exhausted by the paroxysm, or falls to sleep.

It should also be remembered, that there are many others of the feelings which indicate their presence in a child; as, for example, *Self-esteem*, *Love of Approbation*, *Firmness*, *Cautiousness*, *Acquisitiveness*, and *Secretiveness*, and they manifest themselves in strong natural language in proportion to their activity. A child, for example, will appear desirous of possessing all things it may happen to see, and, if disappointed, will cry most piteously. In these cases, when it would be impossible to convince the little creature of the impropriety of such conduct, it is best to remove the child into another room, where the new objects will soon engage attention, and the crying will cease. But, this premature selfishness and covetousness are too often encouraged by an unthinking nurse, who will frequently hazard articles of value to silence the child, or to spare herself some little present trouble; although by so doing she is stimulating faculties which will exert a powerful influence on the maturer years, and render the being liable to gusts of passion, stubbornness, avarice, and pride. It would, however, be more judicious to avoid giving temptation to a child, because when it has been indulged during its infantile days, and is afterwards deprived of similar gratification in the more advanced stage of childhood, it is almost sure to regard its parents as tyrannical and overbearing. Children do not reason,—they act instinctively from mere feelings;

* Anger is an highly excited state of Combativeness and Destructiveness.

therefore we should *think* for them, and influence their conduct by educating them always with a view to their moral respectability. It is not a matter of indifference, and therefore we are responsible for the good or bad actions which may result from improper treatment. All the *feelings* which experience testifies to be thus early developed, are dependent on *cerebral* instruments, and these we have shewn are under the influence of organic laws; so that, by allowing an undue exercise of those feelings, we not only increase their organs, but, by direct means, render their separate functions the more intense. The great object of education should be to regulate and restrain these faculties; for, although we cannot subvert or alter the period of our mental seasons, we may guard against the consequences of mere empirical treatment or wilful neglect.

Do we not constantly hear it remarked, even of the infant, "that it shews its temper"?—a fact which should be deemed a convincing proof that *passion* must depend on something innate. Who ever dreamed of any natural operation being performed (whether attended with consciousness or not) without an instrument through which it must be manifested? And who then would venture to assert that *temper* is adventitious,—a mere accidental result induced by circumstances? If, therefore, we desire "to teach the young idea," we must, in the first instance, comprehend the dependence of functions on organization, and be guided by positive knowledge, instead of conjecture or whimsical hypothesis. Then, we shall be convinced that all mental phenomena are consequences, and that, by acquiring a true system of philosophy of mind, we have certain data on which to proceed. In the present state of things, men talk of premature

anger, or stubbornness, or timidity, in the infant, as if it were something accidental; but to this ambiguous notion no precise meaning can be applied, if we reject the above solution. On the other hand, by admitting the innateness of organs, by which the various feelings are manifested, we then perceive why the non-gratification of desires, when once excited in a child, will give pain, and induce anger and other bad feelings. The feelings are more ungovernable in the mere infant, because the faculties (reflective) which should regulate their separate desires are immatured: hence an infant does not decide on the fitness or propriety of its desires, but continues to cry instinctively.

There is, then, this important consideration which must be attended to in educating the feelings, namely, that *we should avoid exciting them too often*, because these animal desires of the child, by being indulged, only become the more energetic, and more likely to mar the happiness of the future man or woman. On the other hand, to pain children from mere opposition, is both cruel and injudicious, for in this manner we only excite the very worst passions, and render them more susceptible of being roused under the slightest contradiction.

We are aware that to some persons it might seem trifling to devote so much time to the infant, (by which term is meant the infant from birth to six months old); but facts and observation prove that, at this period, habits are commenced which it may be difficult afterwards to remove, even if the being be otherwise moral and intelligent. Who has not seen instances of men of réal talent being the slaves of an over-weening and morbid vanity, which might be traced to some early blight of the innate desire of approbation? a feeling which, like many others,

presents similar phenomena to the bodily organs; as the more sensitive they are the stronger is the indication of diseased action.

Presuming that it will have appeared an obvious consequence of the organic laws of the brain, and in strict accordance with its physiology, that the faculties manifested by the child are liable to have a wrong bias given them; we will proceed to a rather more advanced stage —*childhood*—and illustrate our views by a few examples. The child, from six months old, begins to be more lively, many of its perceptive faculties are active, and its feelings are more easily acted upon. It is very ready to comprehend approbation or disapprobation, and understands the degrees of kindness or unkindness in a most astonishing manner. Suppose the nurse or mamma shakes her head, looking at the same time very grave, if not angry, and says, "You are *very naughty;*" the child is offended, and gives a premonitory sign of it by the pouting lip, whilst the big pearly tear gathers itself into a large full drop, and announces either a loud scream, or else a short half-convulsive sob. This is the sign of an unpleasant affection of *Love of Approbation* and *Cautiousness:* the painful excitement of the former tends to communicate a corresponding affection to the latter, as their convolutions (organs) are intimately folded together. On the other hand, let a timid child be addressed through *Love of Approbation*, and mark the result. It is what is commonly called very shy of strangers; but we approach it with both hands extended, and a smiling face, saying something flattering to the child; and even if it does not comprehend the words, it will understand the natural expression: suppose, however, that it still regards the aspirant to its favours with a cautious and hesitating look, yet persevere until you call forth pleasurable sen-

sations in *Love of Approbation*, and by sympathy you may thus allay the painful excitement of Cautiousness, and overcome its natural timidity.

On the subject of negative education of the feelings, or exciting one which may neutralize the excessive action of another, we are aware of the magnitude of the task, because children are too much entrusted to servants either very ignorant, or too indifferent to the future welfare of their charge. The following remarks are intended to point out the fatal consequences of *positively* stimulating the animal feelings; and it is to be hoped that the practical hints may prove useful to all who may have to do with children, inasmuch as the experience of a casual observer will be enabled to verify their accuracy and importance.

Anger.

Passionate children should invariably be treated with kindness, which should shew itself in an uniform good-nature, tempered with a dignified firmness of manner. The anger of a child ought never to be excited, but it would be highly prejudicial to its moral health to let any misbehaviour pass unnoticed: the great impropriety of giving way to passion should be constantly impressed upon the attention of the child, and with an untiring patience we should watch the pupil to prevent it doing so. There is much probability that, in spite of the most strenuous care, the passionate child may occasionally relapse, and shew paroxysms of anger; but if the master does not lose his own equanimity, it is most likely that, by the age of ten or twelve years, a child would no longer exhibit an animal irritability: the lessons of moral resistance which had been constantly inculcated must exert some influence over the character, and in some measure

soften the temper of even the naturally ferocious. This might not actually be so in every instance, yet, as a general rule, it appears that a child thus trained will not manifest the feeling of an ungovernable anger, but merely much greater energy in manner, and more vehemence in expressing his thoughts: we do not expect by this plan of education to eradicate a single one of the feelings, only to be enabled to restrain them from any excess or abused activity.

How contrary are the results when the passionate child is treated with anger or moroseness! If it is cuffed, or shaken, or beaten, there is then excited a greater predisposition to irritability, and every repetition of the feeling renders the individual more liable to become its slave: as in the case of a festered wound, touch it ever so lightly (whilst it is suppurating) and some pain is sure to be experienced; so when once there is a diseased action in the destructive propensity (Anger), such a morbid condition ultimately supervenes that the person affected can scarcely be approached without exciting his bad temper.

It is, then, an error in mental discipline to use coercive measures in a case like the above, for however we may apparently subdue the passionate child by such means, it will subsequently appear that we have been only deluding ourselves: all that we have done has had a greater tendency to debase the being, as our violent manner of correction excited to activity the *secretive* propensity which is contiguous,* and therefore by this irrational mode of culture an angry child is metamorphosed into a cunning, sly, bad-tempered one,—a torment to himself and to all with whom he associates.

* The convolutions of Destructiveness and Secretiveness are intimately connected.

Pugnacity.

In noticing a number of children, we may easily distinguish between those who are only occasionally passionate, and those who have an almost constant tendency to be quarrelsome. The specimens of the first kind will colour up, cry, and call out when under an angry fit, and in this manner exhaust themselves and the feeling at the same time: the second example may also express itself in a similar manner, but it will not do so passively, for, when once offended, it will have recourse to blows, or scratching, or biting. Such irascible children shew their Pugnacity upon all occasions. They refuse to do any thing they are required to do, and always appear to delight in contradiction; yet it would be the most egregious folly to strike or threaten them, for in such cases the little creatures are sure to lift their hand, and with extraordinary daring strike again. It is a difficult task to deal properly with such tempers, or to legislate for the little tyrant of the nursery; because he is insensible to kindness or persuasion, and will exercise an overbearing sway, and seize with lawless selfishness upon the toys and playthings of his brothers or sisters, not so much from a desire of possession as from mere love of contention; and should force be employed in return, "then comes the tug of war,"—pulling, pushing, crying, and kicking to get possession,—one child claiming the toys by right of property, and the other by the right of the strongest, and from his having accidentally possessed himself of them. The best plan in such a case is to ascertain to whom the property really belongs, and to make restitution accordingly, impressing upon the aggressor the evil of injustice, and upon the aggrieved

party the more noble conduct of forbearance and kindness in similar circumstances. It would be well to avoid exciting the combative principle at any time; but how are we to avoid it? For, it often occurs that children who are naturally pugnacious will evince their inveterate tendency that way by refusing to have what they at first cried for; and, when such children are out of health, they act so much from mere opposition that they will almost make the most patient irritable. If food be placed before such a child, he pushes it from him or throws it down: take it away, and he cries for it: give it to him again, and he renews the first proceedings. In such cases, after two or three trials, the child should be removed from the table into another room, and told that as soon as there is a sign of better conduct he may return.

The love of contradiction will also make such a child refuse a favorite dress, because the nurse is putting it on without asking whether he would wish to have on this or any other. To encourage insubordination would be injudicious, and yet, even with that risk, it is best to keep such tempers unexcited when very young. If a child of such disposition have attained the third or fourth year, and you chide it mildly, appealing to its attachment and moral feelings, there is a probability of restraining its animal excesses; but if you treat it harshly, raising your voice in tones of anger, the child will elevate his, and bid you defiance by telling you "he is *not* naughty, —*you are naughty*."

As a general plan it would be well, when a child manifests the pugnacious feeling, to take no manner of notice of the circumstance, and in most instances the fit would pass over like a dark cloud, and leave the sunshine of infantile happiness as bright and cloudless as a sum-

mer's morning. In extreme cases, solitary confinement for a short time (half an hour) may be useful; but, in the case of the very young, it would be better to take them from the scene of combat by calling them into the parlour, or, in fine weather, sending them into a garden.

If a naturally quarrelsome child require such constant care and such application of negative means to restrain constitutional impetuosity, what can we say of those stupid and thoughtless parents, who encourage the feeling for the sake of the temporary pleasure of seeing the daring postures of defiance, which their approbation induces in the little fellow? "Bend your fist, Johnny, and fight that gentleman;—run at him;—give him a good blow!" And if the poor child obeys, the foolish parents laugh and applaud him; but such an act of levity may so far influence the character of a child as to render him a pugnacious, insolent, and disagreeable man.

Evasion; Slyness; Cunning.

Those who remark the actions of children, must recognise an early tendency in some to be sly, and, in their intercourse in the nursery or at school, disposed to obtain their ends by the most artful means, and deriving a secret pleasure from being able to overreach their companions by subtleness and trickery, instead of having recourse to open and candid rivalry. Now, should this connate tendency* be cultivated in the child, we might predicate that he would ultimately become the most profound actor of dissimulation, and be influenced by craftiness alone in all his transactions, rather than obey the dictates of higher and more human motives; and, when even such a being is watched, and his moral qualities

* Such children have a very large organ of Secretiveness.

cultivated, he will too often shield himself from remark by throwing a veil over his purposes, and, if supposed to have committed a fault, will, instead of making an ingenuous confession, have recourse to evasion, and darkly insinuate, by some ambiguous phrase, that the act should be referred to another person.

It is somewhat important then to prevent, by every means, the probable consequences above enumerated. There are two modes of proceeding frequently adopted, and both of which are sure to produce the worst results: these we will briefly state, and then shew the phrenological remedy. First, If the parent or nurse smiles at the *innocent tricks* (as they are miscalled) of sly children, they in a manner encourage the propensity. Sometimes, however, there is an attempt to veil the approbation by pretending to disapprove the action; but the lurking smile which may be seen peeping from the remote chamber of the eye gives a negative to the would-be reproof, and thus renders the conduct doubly pernicious, inasmuch as the child has a presentiment that his parent has acted under the influence of a similar feeling to that which he pretended to condemn.

Secondly, The propensity which may thus induce craftiness, deceit, and the most artful manners, is nourished by the common usages of society, by what is erroneously called politeness! A child observes his parents express great pleasure at seeing a friend or acquaintance (synonymous terms in fashionable parlance), and yet, by winks or innuendoes during the presence of the visitor, or by scandal and animadversions upon his dress or manners the instant he departs, proving the gross insincerity of their conduct, and violating the laws of hospitality by acts of mean duplicity; and, when we regard the effect produced on the mind

of such a child, probably predisposed to designing artifice, can we expect its character and conduct to be fashioned to ingenuousness? Are not such instances the means of teaching the child to be deceitful, and of inducing him, when circumstances require it, to be guilty of acts of evasiveness destructive to that sense of integrity which should be cultivated, and placing his subsequent moral respectability in imminent danger?

The best way to prevent such aberrations of conduct is at once efficient and easy: BE ALWAYS WHAT YOU PRETEND TO BE. Never swerve from a promise when once made: encourage candour in the little pliant being, by exciting his higher faculties; and there is every probability that a propensity, which would have rendered him artful and cunning, will ultimately display itself in merely a prudential reserve, not at all injurious to his integrity or general conduct.

Covetousness.

There are several mistaken practices in educating children of a covetous nature, which are too important to be overlooked, if we desire moral health.* In the first place, to make them promises of some present in every case where they shew a reluctance not to do what they are requested to do, is a very injudicious thing, as it is ministering to a feeling already exercising too much power over the individual. There is another mode adopted, apparently less objectionable, but producing an effect equally bad, viz., to deprive covetous children of their meals, or to give them something not so nice as they would have had, had they not misconducted themselves: such a proceeding produces results similar to

* I shall shew the demoralizing tendency of exciting the Acquisitiveness, when speaking of REWARDS and PUNISHMENTS.

those of certain medicines: if it cures one fault, or, at least, temporarily corrects it, it induces a new disease nearly as fatal, and which is likely to affect the child in a two-fold manner. First, He will pronounce his parent to be covetous, and will suppose that he himself was deprived of his food, not so much for his faults as to gratify the niggardliness and anger of his taskmaster, and hence the correction tends to destroy the affection and respect which a child should always feel for his progenitors. Granting the conclusions of such a child to be erroneous, they do not appear so to his reason (if infantile deductions can be so called); but, at all events, whether reason or not, it is a natural mental process of an immatured being, although it resembles the superficial conclusions of certain adults, who infer the conduct of others from the motives which they know to influence themselves, rather than the attribute of cultivated and matured reason. Secondly, By paining so strong a feeling as the one we are discussing, other animal propensities are likely to be excited—pride at being degraded —anger at being thwarted, and these neutralize all veneration for either parent or tutor, and prevent the child from profiting by advice or instruction however valuable.

It would be advisable to treat a covetous child in the following manner; namely, never to excite the tendency, but always to praise generous and disinterested acts; and thus, if we cannot eradicate the feeling, we have it in our power to give it a better and more salutary direction. Induce the little being to desire the acquisition of knowledge, by initiating it in some department of natural history, for instance; you may gratify the feeling without any demoralization, and thus a propensity, otherwise tending to vice, may be rendered a means of

instruction and intellectual advantage, acting in concert with the moral and reflective qualities of the mind, and exercising a salutary influence on the character.

Pride; Ostentation; Vanity.

We may frequently hear teachers, who have an imperfect knowledge of the elementary faculties of man, confound Pride and Vanity,* or speak of them as synonymous terms expressive of some modified aberration in the natural function of an innate power of the mind. It is, however, very important not to mistake these feelings in practical education, for, when either Pride or Vanity predominates, there are certain specific consequences to be noticed, and each exerts a powerful sway over the character and actions of the individual. Ignorance is always a source of evil, and never more so than when either of these potent feelings is unwittingly cultivated. By increasing their intensity, we only feed an insatiate power, which will prove highly prejudicial to the individual, and become obnoxious to those with whom he associates. In the years of infancy we may smile at the imperious and dictatorial language and manner of one who seems unconscious of his puny strength when ordering something to be done, either by his associates or the household servants, and who seems to derive no small degree of satisfaction from all he does or says, strutting about in fancied dignity, and exclaiming to those around him, "You cannot do so," and the like. There is, however, a marked difference between such a child and one who is vain: the latter will be very officious, and all he does is for the sole purpose of earn-

* Pride is an abuse of Self-esteem, and Vanity is an abuse of Love of Approbation.

ing your approbation; whilst the proud child is satisfied with himself, and concentrates all his desires for selfish gratification. At play, or when engaged in some amusement, the one with an excess of *Self-esteem* will be the leader, not so much from any wish to confer pleasure on his companions, as because he feels no one else is entitled to rule;—*he* has a natural right to be master! There are two things which should be strictly observed in such an organization. First, When observation enables us to perceive in a boy a high opinion of himself, his inordinate pride must never be pandered to, and even when personal praise is due, it should be apportioned with much care; for if it is not sparingly meted out, it tends to inflame the feeling, and raises it to a diseased state of excitement. It would be well never to address Pride, but to make it subservient to a moral purpose, by inculcating the truth, "that we must give an account of our time to our Creator, and therefore it is our bounden duty to use the talent which he hath given us as it ought to be used," &c. Secondly, Upon no account should the *Self-esteem* be offended; and whilst, on the one hand, we would not feed such a feeling, so ought we strictly to avoid giving unnecessary pain to it. In this manner we abstain from lacerating an animal sensation, which, when morbidly affected, engenders violent anger and rudeness, or disposes the child to brood over the supposed insult, and to meditate some dark and deliberate revenge. If, however, the proud individual possess a good disposition, yet he will never forget any public disgrace or gratuitous animadversion on his conduct; and by always recalling the offended pride which raised a blush in his face, will cease to feel the usual respect due to the master or parent. It is not an unfrequent practice to taunt a child for some personal defect, and

this has induced a very bad habit of *nick-naming*: all teachers should make it a point of principle never to permit such aggravated acts of unkindness. Suppose a proud boy with a bodily deformity to be thus harshly treated; would this cruelty tend to modify his self-esteem? On the contrary, it would rather have a demoralizing tendency, by negativing all the instructions which might be subsequently offered: the boy would say, "I may be ugly, or squint; but I did not make myself so;" and here the flagrant injustice of such an attack would rouse his worst passions to retaliate for the insult.

Difficult as the task appears so to educate a child, possessing strong connate pride, as to prevent it urging the individual to acts merely selfish, still the labour is trifling compared to the almost insuperable task of regulating the moral conduct of a child having naturally an inordinate *Vanity*. For, if such a being seem to pay deference to its parents or teachers, it is mostly for the purpose of drawing forth something which may flatter the innate Love of Approbation. Many persons mistake the object of the child, and regard its actions upon such occasions as if they were induced by a sense of duty or deference; but the little creature is incapable of making any reflections upon its natural or relative obligations, and will be officious and smiling, merely for the sake of some such praise as this: "There's a darling!" or, "There, you are a very good girl!" or, "That was well done, you pretty little dear!" &c. But all such praises are so many appeals to *Love of Approbation*, and the effects are baneful to the individual, if given without due care and without great discrimination.

> "Learn to contemn all praise betimes,
> "For flattery is the nurse of crimes."

And what else is made use of from the very dawning

of consciousness, by the *respectable* parts of society? Flattery is the common language of the nursery and of the parlour, and also the stimulus which is applied in tuition, at meals, and in the play-ground; and however diversified as regards the mode of expression, its specific object is the same; the child is soothed by it, and, when in the company of its parents, is constrained in its manners by the mechanical and artificial usages of etiquette; and, under the name of emulation, its desire of applause is made the incentive for outstripping others, and the source of contention and ill-will during the hours of relaxation. If we analyse the motives of those who thus appeal to this powerful feeling, we shall find that in every instance they do so for the purpose of facilitating the otherwise laborious task of moral culture. A servant, for example, observes that the dear infant is easily moved and acted upon by flattery: hence, to avoid a temporary inconvenience, she administers an overdose, without reflecting that it is like an opiate, and that we must continue to increase the dose, or else the anodyne effect will not ultimately be obtained. How common a practice it is for parents to attempt to induce a child to behave itself properly whilst in the parlour, by assuring it that rude and vulgar children only speak what they think, and ask for what they want, but that young *gentlemen* and *ladies* should know better! Is not this making an appeal to *Love of Approbation?*—and to what can we attribute this election of an animal motive, if we reject the notion that it originates in a desire to spare trouble? The same argument would apply to the senseless manner adopted by some teachers, of which we shall speak when treating of Rewards; but, such is the harmony of the moral government of God, that in most instances the designs of parents and instructors are defeated, and they create for

themselves infinitely more trouble in the end than they would have had, if the moral qualities had been early and judiciously worked upon.

Secondly, Every opportunity is seized upon to minister to this insatiable feeling; such as noticing the dress and personal appearance of the child; and this unthinking procedure is persevered in until the most baneful effect upon the character is produced.

Thirdly, By appealing to this feeling so constantly, there is excited a greater intensity of function, and therefore such appeals may with propriety be said to sow the seeds of sorrow, disappointment, and immorality. In the first instance, whenever the feeling becomes so active as to engross all the thoughts of a child, it is sure to be often unintentionally pained by non-gratification; and even in more advanced years the poor vain being is frequently heart-sickened at the fancied neglect of those from whom it anticipated approbation.

The following experiment with an *officious* child forms a just corollary to the proposition,—"that the more the feeling is encouraged, the more potent its influence over the being who thus becomes a slave to it." Let such a child do any thing, whether requested to do so or not, and you simply say, without the approbationary smile, "thank you!" and observe the effect: you will perceive that the poor little thing looks dull and disappointed, because it has not obtained the expected praise. But had the kindly disposition which is induced by the *benevolent sentiment* been cultivated, it is obvious that all its actions would proceed from a sense of duty, and the consciousness of its having done this duty would be a sufficient recompense.

And, lastly, the immoral tendency of thus encouraging the vanity of a child will be obvious, when we consider

that *Approbation* being the thing desired, it will ultimately be strenuously sought after, without any very nice regard to the means of obtaining the boon. It is easy to prove that *lying* is induced by the *Love of Approbation*. Instances are obvious: if any accident occurs, and the vain child is either the principal or otherwise concerned in the transaction, he will be the first to tell of it, but in such a manner as to implicate his companions. Or the truth may be compromised thus: a child of this disposition does anything wrong, breaking or losing something with which it was entrusted; the painful sensation which the anticipated disapprobation occasions to the little offender, when taxed with the fact, makes it evade, and sometimes have recourse to direct falsehood.

In thus deprecating this feeling (Love of Approbation), we do so on account of the positive injury which it inflicts on an individual when it is constantly and early made the strongest motive for all actions, and, of course, for the purpose of preventing, or at least warning parents and teachers against, its various abused consequences;* yet we still think that the feeling would become a very powerful auxiliary, if it were appealed to in combination with moral motives. We will briefly shew how subservient the faculty may be made to effect the noblest ends of education, and that, if properly used, it may become a blessing instead of a curse to those who hold it in subordination as the servant of the higher faculties, instead of suffering it to reign as their dictator.

First, this feeling, as we have stated above, should

* The subjoined catalogue enumerates but a few of the abuses:—Empty and uncertain pursuits; ostentation; idle show; fruitless desire, which can never be gratified; falsehood; and many other aberrations.

never be addressed singly, but always in combination either with Conscientiousness, or Veneration, or Benevolence. With a reference to the first-mentioned sentiment, our language would run thus: "Nothing is more disgraceful than violating the truth, or doing any thing which that *secret something* tells you it is wrong to do." Or in this way: "Always deem that to be improper, rude, and vulgar, which would be a violation of that sacred apopthegm which teaches you 'to do unto others as you would they should do unto you;'" and further, we might inform the infant of a test, to be applied by himself, for ascertaining whether he was acting under the influence of a selfish or a moral motive, thus: "Is what I am about to do intended to gratify myself alone, or to benefit some one else?" Or, "Should I like to be served so myself?"

But, the most powerful appeal would be made by addressing this feeling in unison with the *religious* sentiments; yet to render such an appeal awfully impressive, it should not be frequently had recourse to; and even upon those occasions when it is used, care should be taken not to be *mysterious* in our manner, nor to speak in the sepulchral tones of a mortified ascetic: our language should be cheerful, devotional, and calculated both to evince and to inspire a full confidence in the ineffable goodness of the Great Being to whose name and attributes we endeavour to awaken the child's first thoughts. Hence, we might say, "that the only *enduring approbation* is that which results from our humble and earnest efforts to please our God and heavenly Father, and from the faithful and persevering discharge of our duty to our parents and fellow-creatures."

It would be a comparatively easy task to make the Love of Approbation, if once subservient to the sense of

justice and devotion, powerfully influential in softening the character, and inducing that true politeness which originates in an active benevolence. First, inculcate that persons of all nations, and all the individuals of each nation, form one great family, and that we should not allow ourselves to be inactive whilst we see so many of our natural relations miserable: that we should endeavour to mitigate suffering, and not be satisfied with mere sympathy, but use our personal exertions to make those we associate with happy. Principles like these, thus early instilled into the mind, could not fail to produce an urbane and generous disposition, to inspire the child with the noblest sentiments, to make him generally cheerful and happy, and to call forth in after-life his blessings on his tutors, and his deepest gratitude to his beloved parents.

If such be the positive advantages which would result from a judicious application of these rules for regulating and giving a proper direction to the feelings in question, let us look upon the picture reversed,—to the case of an unfortunate being who has been abandoned to the animal mastery of his Love of Approbation, and we shall find that it has made him a servile trifler, alike unfit for noble enterprize or for personal exertion, constantly liable to be disturbed by violent resentment for some imaginary insult, and, at times, forcing the blush of shame into his face when he reflects upon the littleness of his actions, and the futility of his pursuit after some vain-glorious bauble.

We have thus briefly investigated the several distinct consequences resulting from the *abuses* of Self-esteem and Love of Approbation, and shall conclude this article

with an observation respecting their mutual action;* for it is impossible at times to offend one without affecting the other. As an example, suppose the vain man disappointed of some anticipated applause for some act which he thought merited it: although, in the first instance, his *Love of Approbation* is affected, yet, on most occasions, as this feeling cooled, the *Self-esteem* would be aroused into an unpleasant warmth, and, if accompanied with a generally low organization, there is no calculating the tempestuous state into which the mind might be thrown; and indeed, even when there are good natural faculties, if the feelings we are speaking of be strong, and have been improperly cultivated, they stifle or corrode the noblest emotions of the mind, and mar the happiness of the individual. It is important, therefore, that we should be extremely careful how we educate two such feelings as Self-esteem and Love of Approbation, lest they should by degrees usurp the mastery, and establish a sole and irresistible despotism over the mind.

Timidity; Hesitation; Indecision.

The advantage of positive knowledge over mere speculative views is obvious in every thing we undertake, and certainly, in educating the various faculties, is conspicuously manifest. How often must the unskilful teacher be puzzled in the management of a child naturally timid, particularly if he regards such mental affection as an accidental occurrence, or as the negative result of want of courage! The very means he uses to remedy the affection will most probably tend to aggravate the symptoms, and render it permanently inconvenient to the child.

* The convolutions or organs of the two feelings are intimately united.

It is one proof among the many which might be adduced of the value of Phrenology, that its metaphysics are practical, and capable of being applied to every possible variety or state of mind. We have shewn in the former part of this work, in our analysis of the different fundamental powers, that man is endowed with an instinct of *Caution*, and also an instinct of *Courage;* and with such *data* there is no difficulty in treating either extremes. We have already given general rules for preventing the excesses of Courage under the head of *Quarrelsomeness*, and in this article we shall briefly point out how the extreme affections of *Cautiousness* should be prevented. The indications of an excess of Caution are marked very strongly, sometimes by a painful hesitation in speech and manner; sometimes by an agonizing timidity at approaching strangers, or at being alone, or in the dark; and sometimes by an inveterate want of decision in doing any task, from the groundless fear of not succeeding; but the effects of all these modified states of the feeling on the mind of the child are similar: they all paralyze the natural energies of the moral and intellectual faculties, and, if not counteracted in time by judicious treatment, become, at last, the means of rendering the whole character pusillanimous.

There are two plans usually adopted, but both of which are highly prejudicial, and therefore should be abandoned. The first to be noticed is one which we trust is now nearly exploded; that is, endeavouring to force a timid child to do what is desired to be done by assuming a mysterious manner and tone of voice, for the purpose of exciting its fear. Knocking the hand on a cupboard, or looking up the chimney and appearing to address some being who is asked to come down and fetch the naughty child, are common ways. The child

becomes stilled, but it is suffering a silent agony at once destructive to mental and bodily health. In very weak children, or in those of a nervous temperament, fits and convulsions, and sometimes idiotcy, are the results of this very injudicious and cruel proceeding. The second plan is liable to produce effects nearly as bad, but the process is different. Instead of calling in the aid of the marvellous sentiment, and frightening the child with some non-entity, the parent or tutor threatens it with corporeal punishment, insisting on its doing the things desired, passively; and when the poor little trembling creature still hesitates, he is beaten, or turned out of the room: but this does not allay the excitement; hours after the anger of the parent hath subsided, the child's little heart palpitates, and the tremour is increased by the painful fear of a repetition of the drama; and thus, unintentionally in both cases, there are sown the seeds of disease, which may at some time produce hypochondriasis, melancholy, and suicide!

Our experience enables us to say, that it is the better and more humane treatment in moral culture, not to excite any of the feelings, and particularly this one we are speaking of. If, for example, a child of four or five years old invariably sneaks away from company, the better plan is not to seem to notice it, but take an early opportunity of employing it on some errand, so that an answer must be brought into the room. This will be quite sufficient in the first instance, and by frequent repetition will excite more confidence, and less disinclination, at the sight of strangers. We often see children of this kind, in order to avoid any intercourse with strangers, creeping under a table, or getting into a corner, to be unobserved; but, although we should try to prevent this, still it should never be done with force:

an opportunity might be taken, when the company had departed, to speak to them on the impropriety of shunning any of our friends, and to request them, upon another such occasion, to come into the room and shake hands: the last article of the truce might be dispensed with in the first instance.

Another example will still further corroborate the value of knowing the bad consequences of exciting a strong feeling like Cautiousness. Many timid children, when they are in company, hold down their heads, and, if spoken to, answer in a whisper: and the discipline usually adopted to correct these defects of manner is the very reverse of what it should be. Parents are apt to chide them, instead of using kind and soothing encouragement; or they elevate their voice when they should address them mildly, and not keep up an unpleasant excitement of a strong feeling, which, without such means, is already the bane of the children's comfort, and a source of incessant unhappiness to them by anticipation, as well as for the time present. Gain the confidence of the timid child, and invariably treat it affectionately, explaining any groundless cause of alarm; and then, in after-life, it will manifest prudence without pusillanimity, and a proper degree of hesitation before doing any thing, without a painful indecision.

Stubbornness; Obstinacy.

There is a very great difficulty in educating a child naturally stubborn, because the tutor has to contend against an involuntary tendency to resist instruction of all kinds; therefore the application of force as a means to counteract such natural impulse defeats the instructor's intention, and will, in all probability, give rise to a more

inveterate disposition to be obstinate. The stubborn child may appear to be broken in spirit, when treated with harshness or cruelty; but we must not suppose that by so doing we render him more flexible in temper: all that is gained by such proceeding is, that he will ultimately become more head-strong in proportion as he acquires an indifference to bodily suffering.

The savage often presents a strong picture of the brutalizing consequence of giving the instinct of Firmness an animal bias, in the manner with which he bears the most horrid and sanguinary tortures when made a prisoner of war,—tortures of such studied and refined cruelty as to make the more cultivated human being shudder even at the mere description.

It is a species of unaccountable folly to endeavour to correct the temper of a child, whilst we exhibit precisely the same abuses of temper and conduct ourselves. And is not this the usual manner adopted in the treatment of an obstinate child? For example, a child of this kind is told by its parent to do something,—he does not obey with alacrity; the command is repeated in a more determined tone,—he remains still immoveable; the parent betrays more impetuosity,—the child still disobeys, or, should he do otherwise, his look is that of defiance. If this drama be often repeated, it becomes fatal to parental authority and to filial respect and obedience, for ultimately the child will not care whether he be remonstrated with or not.

It would be found to be a more salutary and efficient practice, to pass over the first indication of obstinacy, until the refractory little fellow gives evidence of greater docility. The usual language of the tutor only tends to keep up the excitement, and in a great measure lessens his influence over the boy, because it is evident to even

the infantile capacity that his master is also very obstinate. If, for example, a child is set to a task, probably he does not comprehend it, or is too indolent to try; the tutor asks him whether he has got his lesson, and the child answers in the negative; the master tells the boy, "I insist upon your doing it," and, if the command be still unheeded, assumes a menacing attitude, and with evident anger says, "I am determined you shall mind me," &c. That such discipline is improper, may be proved by daily experience; and it is the more lamentable, as the effect on the disposition is not of a negative kind, but there are induced a sullen obstinacy and perverseness that are likely to mar the happiness of the individual, and render him overbearing and refractory to those with whom he associates.

As education cannot entirely destroy a faculty, we shall perceive the inconsistency of making such an attempt when there is manifested a strong connate Firmness: all that we should endeavour to do is, to give the feeling a moral direction, and this could be more easily accomplished than some persons might suppose. First, it should be remembered that the child, with Firmness naturally intense, feels an irresistible inclination to gratify it: we should therefore address it in connexion with some moral sentiment, and thus use it for some specific good purpose. Let the child be told "that he has the power of resisting any action that he has been fore-warned of as improper;" or, "that it is a sign of a noble being, to shew a determination to be good himself, and to endeavour to do good to others:" the child's reflections would give a response to such maxims, and even if he could not comprehend their philosophy, yet he would understand that he felt something within him like determination.

It might also be early inculcated, "that by persevering in a desire of knowledge, we made an offering of gratitude to God for having given us such noble sentiments and elevated intelligence." In this manner, we should ensure to the individual, in his more mature years, an inflexible integrity and ardent desire for solid information, which would create a consistent stability of character, and render him better as a man, and more useful as a citizen.

Force of Example.

We cannot do better than close the present chapter with some general remarks on the Force of Example, since example is generally admitted to be better than precept. Yet how rarely is this excellent maxim acted upon, although it comprehends the very philosophy of moral education! To understand why there exists so much contradiction between theory and practice, or, at least, why there is an insufficiency in mere precepts, we have only to reflect, that ideas are fleeting, and that the words which represent them are, to the mind of a child, mere unintelligible sounds: but the greater part of mankind act as if they thought that mere verbal instruction could exert a moral influence, forgetting that the only efficient models by which the conduct of children can be properly formed, consist of moral actions, which present to the imitative sense the materials for good character, and which the young actor will study to copy and to emulate. It is much to be regretted that most persons appear to be contented with communicating good precepts, or correct modes of thinking; whilst, by a strange infatuation, they neglect the more salutary means,—their own personal rectitude in all things,—for stimulating the noblest

faculties of the pupil. Precepts, it should be remembered, are useless, unless practically illustrated; for precepts are as evanescent as thought, but example is like a graphic representation of them: the former may be mentally contemplated by the child in the virtuous conduct of his parents, and in this manner exercise a powerful influence upon his character.

It may be asked, whether actions are observed by very young children; and, even if they be so, how they can be affected by the observation, when probably they do not comprehend their nature and import. We do not suppose a child reflects on the fitness or impropriety of such actions as it witnesses; but experience renders obvious this truth, that by far the greater number of a child's ideas, both as regards manners and conduct, are acquired at a very early age through the instrumentality of the faculty of imitation. This fact being in strict accordance with truth, and confirmed by observation, deserves the serious consideration of every candid mind; and it becomes apparent upon the least reflection, that there is great responsibility attached to those who may have the care of children, so that there ought not to be in parents or tutors the least neglect of, or deviation from, moral duty; nor should there be any species of affectation in manners, dress, or speech, under the absurd pretence of fashion, since any error of conduct is sooner learned than unlearned.

Philosophers speak very often of the potency of habit, and the preceding views enable us to explain why this is the case. Habit means, when applied to mental operations, a peculiar impression which the mental faculties have received, but which is rendered more intelligible when translated into physiological language; it being an established fact, that the faculties of the mind acquire

greater activity, in proportion as the cerebral organs are exercised; so that, according to the bias which these faculties receive, there will be exhibited either strong moral symptoms, or great animal intensity; and, ultimately, the actions which each class may produce will become, as regards the conduct of an individual, his second nature. It cannot, therefore, be a matter of indifference which class of a child's faculties is influenced by our example, and, therefore, if we be not eminently selfish, we shall always endeavour to act in such a way as must tend to enforce a habit of moral rectitude. The task is very easy; we have only to take care ourselves to do every thing we desire a child to do, and avoid every thing we wish it to abstain from doing, and the result would be, that the imitative being we thus practically instruct, would manifest from infancy the higher motives for action, and in this manner become a blessing to himself and to the commonwealth.

In this mere cursory sketch of the power and nature of habit, and the influence of example, it cannot be expected that we can devote to the subject any more time than will enable us to give it a very general consideration; still there are many indirect or negative modes of vitiating the moral health of children, which demand also some little attention. We have frequently remarked that parents will make incautious promises to children, in order to avoid some little inconvenience from their importunity; and then it often occurs, that from some unexpected circumstance the pledge is violated. The circumstance is always likely to produce a bad effect on the mind of a child, first, by rousing its selfishness and lessening its affections; and, secondly, as it does not reflect on the casualties which unavoidably produced the disappointment, there is a possibility of its attributing it

to deception; and therefore, when any occasion seems to demand a similar violation of truth, the child will avail itself of the supposed example of its parent. One moral rule would prevent this; namely, "never to forfeit our word in the slightest degree, nor ever make a promise, unless we are sure to redeem it;" and as all prospective actions are uncertain, we should always give a qualified promise, not from any duplicity, but with that expression of moral humility which must arise from a sense of the dependence of ourselves and all things on Providence.

Particular care should, as we have already shewn, be taken not to exercise the mere animal feelings in excess, for the abuses which each excess gives rise to affect the pliant faculties of a child, and exercise a more inveterate influence upon its character than they would upon that of the adult. The feelings of a child being naturally powerful, are easily and progressively acted upon by circumstances, until their growth becomes so luxuriant as to retard that of the moral sentiments; and then these very feelings, like noxious weeds teeming with ugly and disgusting animalcules, become the nidus of folly, crime, and immorality; and at length so corrupt the finer parts of our nature, as to leave the individual a slave to every species of sensuality.

We have often been shocked to hear young children swear, a habit which must have resulted from the example of the parent, or from being allowed to associate with servants who sometimes express their angry feeling in this manner. In instances of this kind, the vulgar and improper habit which the child imitates is not the effect of judgment, for he does not comprehend even the words used: all that he observes is, that his father stamped with his foot, using, at the same time, particular terms,

whenever he was angry; and as the innocent being must copy what is done in his presence, he will also, whenever he is thwarted or angry, be sure to repeat both the action and the words which he had observed his parent to use. The practical rule in such cases is this: "Never give way to angry passions, nor express such excitement by vulgar expletives; and not only will life be rendered more happy, but the children entrusted to your care will be sure to be influenced by your example; and in this way the naturally good you avoid corrupting, and the naturally vicious you will amend by always giving him the higher motives for all his actions."

But we may be told, that many persons abstain from shewing their angry feelings, and yet inwardly have them struggling for utterance; but this is evading the proposition, because if you harbour anger, whether you express it in boisterous language and manner or not, its silence exercises even a more terrific influence on the mind of a child, for he sees the physiognomical signs in the face, and he is taught duplicity with anger, and the means of concocting some certain revenge.* There are many other equally fatal effects induced by similar indirect modes of partially cultivating the faculties; for, in all cases, if we do not improve the moral nature by education, we injure the individual, inasmuch as we have allowed the animal feelings directly or indirectly to become worse, thereby rendering him a slave to sensual passions, and a moral insolvent, who cheats society of his proportion of labour for the general good.

As a general truth it must be admitted, that the greater number of parents would prefer having their offspring moral and intelligent; but with very few exceptions,

* Children so trained will take an opportunity of nipping slyly any one who has offended them.

whether from ignorance or inattention, children are the reverse of this, as might have been anticipated from a consideration of the powerful effect of example. We will pass over the very lowest classes of society as illustrative of the position, for the parents in those classes are so much engrossed with painful laborious occupations, and so very ignorant themselves, that it would be unreasonable to expect a very great display of morality or intelligence amongst them; but amongst the middle class and the higher grades of society we ought to anticipate a better condition, as they enjoy more and better means of improving their children. The reason why there are among the latter description of persons so many bad children, must be traced to some vital error in the basis of the generally received plans of moral tuition; an error to be traced to this one source,—that precepts are substituted for example. In order to avoid mere vague assertions, we may ask, what are the motives of human actions in what are called the educated portions of society? And we do not hesitate to reply, that by far the greater part are vain and ostentatious of trifles, spending much valuable time in studying rules of etiquette, or, in other words, of being deceitful and evasive with an apparent sincerity and elegance of manner, and shewing an irritable desire for the acquisition of wealth, and eagerly pursuing some unsubstantial bauble. In this way most men spend their best years, in utter recklessness as to the rapid progress of time and the shortness of life. We might have expected that the lessons of the past on the inutility of such proceedings would have been an emphatic warning to others; but in spite of common sense, and the most sacred truths regarding human conduct, we still see men strenuously endeavouring to obtain an artificial rank, which the

grave, after a few revolutions of the sun, will level into even a nothingless shadow: and others are struggling with all their energies to accumulate that which the next generation will dissipate in extravagance, or waste on expensive and vicious follies. How preposterous, then, to look for any other result than the present heterogeneous mixture of folly, vice, and degradation, which form the ingredients, in most instances, of which society is composed!

To induce children to act under the influence of the moral sentiments, these noble faculties must be early trained, and be made constantly the motives which should regulate the conduct; instead of pride, vanity, and selfishness. We should endeavour to make our lessons practical, and to effect this, we must rely upon deeds more than upon words. It is therefore important that we should not ourselves pay too much deference to mere wealth or fine clothes, unless some intrinsic worth accompanies the possession of them; for if we be not very scrupulous about the character of those with whom we associate, our moral lessons will be worse than useless. If, for example, we entertain a wealthy man who may be immoral and ignorant,* a child is not sufficiently intelligent to perceive that such conduct is induced by policy, and that all the attention and apparent respect are not so much offered to the individual as to the money he is worth; and therefore, unless schooled for the purpose, the innocent being will (if the rich man be disagreeable in manners and person) rather loathe than honour him. In such a case, then, the animal powers are excited, and the moral attributes unheeded; because the child is taught to simulate a respect which he does

* We use the term "ignorant," not as relating to literary acquirements, but in reference to positive knowledge.

not feel, and to bow down and worship the glittering dross before he can know its conventional value; and in this way we shew less regard for the moral health of a child than we do for that property which, coming to *animal man*, may be regarded as a curse rather than a blessing! Often we may hear the child, with unsophisticated simplicity of manner, say, "that's a disagreeable old man; I don't like him;" when mamma or papa bids it be still, and, with a scowling brow and sly sinister look, the child is told in a whisper, "the gentleman is very rich, and we cannot do any thing without money," &c.; and thus the poison is insinuated, and all the future actions and pursuits of the child are tainted with avarice, which vile passion will, in all probability, distort his notions of rectitude, and mar his kindly feelings. How can the result be otherwise? From infancy the child has seen his parents, whom he loved and imitated, pay their devout homage to wealth; and he closes up his own better feeling, and turns away from the needy sufferer without heeding his misery or pain, and thus bids defiance to the best tendency of his nature, namely, to relieve the distressed, and soothe and sympathize with the unfortunate. And in order to fully estimate the demoralizing effect of such tuition, let us scrutinize the sort of justice displayed by one so educated, whom we shall find looking with placid forbearance on the errors of the rich, whilst he distorts any slight aberration in the conduct of the poor man as a crime deserving the severest punishment.

Character of Teachers.

In speaking of the intellectual eligibility of persons who may exercise the rank of Teacher, we must do so with the greatest delicacy, as our object should not be in

any way to offend, particularly when individuals are unusually sensitive on this subject: but no such delicacy needs to be observed by us in speaking of their moral character, as that most powerfully concerns us, and should in most instances determine our choice. We admit, however, that the task is particularly difficult to treat of the moral respectability which is so essential to give dignity to the Teacher, and which is indispensible to render his responsible situation eminently useful: for, when we contemplate what direct and indirect influence he must exercise upon the embryo faculties of a child, it must be admitted that his conduct is most important, inasmuch as he will become either an agent for extensive advantage, or one whose example will even vitiate the naturally good and noble. There is then a palpable necessity that the moral character of a Teacher should be spotless. The religious instructor addresses only a few of our faculties; whilst the general Teacher has to cultivate all our powers, feelings, moral sentiments, percipient and reflective faculties; and as a child spends so much time with the latter, and comparatively speaking so little with the former, it is obvious that the almost constant association with the Teacher will tend to make his example most emulated by the pupil.

It is, then, highly necessary to induce sentiments of esteem and veneration for the Tutor; and parents, by so doing, would be amply rewarded by the improvement of their children, who, in that case, will estimate the approbation of the instructor, and use their best efforts to abide by the precepts of duty inculcated by him. For, although a child be indebted to his parents for his existence and support, yet he owes a deeper obligation to those who may educate his faculties in such a manner as to influence his happiness through life. Of course, it

will appear an essential principle that the Teacher should be moral and intelligent himself, or his example must tend more to injure than to improve the nature of his pupil. Truth obliges us to say, however unpalatable the fact may be, that the moral worth of a Teacher is too often regarded by parents as a secondary consideration, and the merits of an establishment are estimated more by its show of learning and speciousness of manner, than by more intrinsic and useful knowledge.* What is politeness, when mechanically exercised? A vapid mawkishness; a mere senseless mannerism, which an automaton might be taught. The *beau-ideal* of gentility is to be seen only in a cultivated intellect, and in combination with a high sense of moral rectitude; then this kind of politeness gives a true dignity to him who possesses it, and imparts to his demeanour an irresistible charm which fascinates all who may come within the sphere of its influence.

It is equally a truth, verified by experience, that no lasting advantage accrues to the pupil from the usual scholastic routine; nor can this be otherwise, until the master approaches to the *moral* standard we have spoken of, nor until the pupil is taught to feel for him an affectionate respect. No notion can be more mistaken than that of most parents, who estimate the rank of Teacher as something little higher than they do that of a tradesman or mechanic, and seem to suppose that upon their own part there is no obligation when they have paid the half-yearly account. This, however, is both injudicious

* In many establishments they exhibit dramatic feats, and induce a puffed-up pride in the young aspirant for the buskin; or they spend much time in ornamental writing, &c. Of what use are these accomplishments in forming the character? They are worse than useless.

and ungrateful; for, by this means, one of the noblest professions is degraded; and surely some difference ought to be shewn between two individuals, from one of whom you purchase some commodity and pay him for it, whilst the other trains the faculties of your child, and renders him fit for exercising himself with credit and honour in the world; for which service your money, considering his anxiety and confinement and consequent loss of health, cannot be deemed a sufficient remuneration. Besides, in degrading the Teacher, you neutralize his usefulness. What respect can a child feel for a master whom he hears his parents address in language very little more deferential than if he were a higher sort of menial? We can only judge of such weakness and the imbecility of such conduct by the effects, and by noting the very striking difference which results from an opposite proceeding.*

* The following anecdote is an excellent commentary on the text:—A gentleman, who taught music privately in a family, used to go in at the front door, to which he always gave a loud rap, rap: his pupils used to regard him with something like respect, which he observed they did not show to their other masters; and one day the secret of it came out, one of the innocent beings observing, "you must be a gentleman, for you come in at the front door; but all our other teachers come in at the back door, and therefore they are not gentlemen."

CHAPTER X.

MORAL CULTURE CONTINUED.

When a child loses the moral essence of its character, the parent may be certain that all real respect and devotion to their wishes will have evaporated, as true filial piety must be warmed by the moral sentiments of our nature before it can be matured, and therefore will never be manifested by one whose lower feelings have been principally addressed.

With these truisms before us, and with a knowledge of the organic laws of the brain, we repeat, that when parents abandon their children to the influence of cold and heartless precepts, they may be said to nurture the passions, and induce all the bad consequences which result from these excesses; all of which will be placed to the account of parents, and stand labelled with this strong charge against them; "that most of the sins and misery of the children are to be traced to wilful neglect, or palpable and stubborn ignorance, on the part of their natural guardians."

On the other hand, how delightful to contemplate the future prospect to those children who have received the seeds of moral worth from their parents, so that those seeds being sown in a good soil, and nourished by the mental laws, they seem likely to bring forth abundant fruit in due season! What happiness we may then ensure to a child, and what consolation to ourselves, by

cherishing the aspirations of the higher faculties, by such means as tend to excite corresponding sensations, at once refined, useful, and ennobling.

To develope the sentiment of benevolence, we must invariably treat a child with mildness, and address it in the language of love; for, even when faults are committed, we should chide with kindness, and let our voice be mellowed with tones of pity and regret, and in this manner soften the heart (to use a scripture phrase), and make it more susceptible of good and benevolent impressions. There cannot be conceived a more interesting picture, than that of a parent (upon such an occasion) pointing out to the little culprit, in the mildest possible manner, the consequences of wrong conduct: instead of looking angry when describing the offence, he will bear a reverential aspect, and speak of such behaviour as improper and offensive to God. We are very certain that this proceeding would awaken within the mind of a child a sense of piety and adoration, and be the best and most salutary means of fixing his attention upon the necessity of acting rightly. And, surely, the very best and most effective plan for moral education would be, to instil into the child a proper notion of his constant obligation and duty to God, which could be easily accomplished if he were told to ask a blessing upon every occasion, particularly when he should feel a desire to do what was right and proper.

In thus using the two powerful moral motives of our nature,—our duty to the Creator, and our sympathy for mankind,—we should not be acting as skilful guides if we neglected to appeal constantly to the sense of justice; and, even when the mind is too immature to comprehend the notions of religious devotion,—when it is so naturally enfeebled in the benevolent sentiment, and so

strongly imbued with selfishness as to become indifferent to the sufferings or inconvenience of others, so long as it ensures its own gratification; yet there are means to make it comprehend right and wrong; and in order to do so, we have only to ask such a child "whether he would like to have pain—to be almost naked—to be nearly starved," &c.; and as he would reply, "to be sure I should not!" then we might excite justice, and make it instrumental to arouse the natural benevolent sympathies, and a feeling of gratitude to Him who preserves us from want! The use of these powerful moral motives, from infancy, will neutralize all manifestations of ungovernable selfishness; our motto, which cannot be too often repeated, being this: "Let your actions be practical illustrations of your precepts."

If one faculty more than another should be used in moral culture, let us constantly appeal practically to the sense of justice, by doing what we urge our children to do, and thus presenting in our own conduct an epitome of all moral obligation. And should our warm anticipations of the advantage of this plan prove to be incorrect, we should, whilst we admit our views to have been erroneous, have to lament that moral and intelligent man is an exception to the Creator's goodness, for that man alone had faculties which he could not train or regulate, but that if he violates the mental laws (by acting under selfish impulses), he is sure to suffer the punishment of personal inconvenience and suffering for every infringement. But it is some consolation to know that God is just as well as good; that man forms no such exception; and that he has the means of self-government bound up with his various faculties, and intelligence to enable him to discover certain principles for the purpose of framing rules for moral improvement.

In an education conducted upon a plan which should accord with man's natural organization, we contemplate a realization of the proposition developed in the last chapter; viz. that the lower feelings could be restrained and kept from degenerating into abuses, by making the motives for all actions to depend on piety, love, and justice;* which virtues would insensibly become the rules of conduct to the individual, so that he would neither have criminal desires, nor feel any inclination to indulge in acts of selfishness.

It is admitted by every rational observer, that however the higher faculties of man may be improved by exercise, still there are limits which bound each individual's capacity for moral and intellectual improvement; but that, when the nobler faculties are neglected, and the person degrades himself by the exercise of his lower and sensual feelings, the converse of the above takes place, and the miserable being goes on sinking from one stage of vice to another, until he loses every distinguishing trait of a moral agent! This fearful consideration shews, more forcibly than any other, the necessity of a constant and untiring attention to moral culture. The former individual may be compared, during his infantile and youthful struggles for the great mastery of self, to a person climbing a steep hill: time, patience, and labour will bring him to a place of rest, where he may be refreshed by the retrospective view of his toilsome undertaking, and filled with inward satisfaction at the cloudless prospect spread out before him. The latter may aptly be compared to a man falling down a precipice; in which case destruction seems more certain in proportion to the height of the fall, and to the first impetus given to it; and, although the

* Veneration, Benevolence, and Conscientiousness.

unfortunate man may try to catch by some twigs during his rapid progress, the probability is, that he will find them too weak for support, and be inevitably dashed to pieces.

There is most certainly a practical duty to be inferred from our preceding observations; viz., that at all events there is a strong obligation upon us to use every possible means of cultivating the budding faculties of children, and trust for the happy issue of our plans to Providence. Now, the means we have proved to consist in stimulating the higher faculties (moral sentiments), which are too often (in the greater number of children) naturally weak and sluggish, but, at the same time, capable of being roused into a state of activity; and when this effect is obtained, the progress to improvement becomes both certain and easy.

But there are cases which require the most judicious treatment, and unless the moral physician comprehend the laws of mind himself, all his attempts at amelioration will be frustrated. Empiricism is even more fatal in mental affections than in corporeal ones; for in the former, that which is experimentally administered induces direct disease of the brain from the over-excitement of particular functions; whilst, in the latter case, it is not improbable that the virulence of any nostrum may be counteracted in its effects by the constitution of the patient. Whenever there exists a tendency to excesses from an extreme developement of the propensities, we should endeavour to prevent their abuses by describing the consequences of over-indulgence in any of our feelings, thus addressing the foibles of a child in an indirect manner by painting strong examples of self-abasement, and holding up a sort of mental looking-glass, wherein would be exhibited portraitures of moral deformity; and

such is the naked hideousness of vice, that it is more than probable it would awaken disgust, and have a tendency to check similar embryo sensation in the child.

We ought not, however, to depend entirely on negative means, but should instruct our pupil how happiness is insured to those who obey the natural and revealed laws of God, and who act from the dictates of the moral sentiments, from which pure and hallowed sources every great and noble motive must spring.

The rule should be made absolute, "that whenever a child is observed to have strong animal feelings, they should be left to lie fallow, and that his intelligence and morality should be constantly cultivated." Although, as in the culture and improvement of a plant, we might hope to amend the being by such means, yet we should not expect that he would lose entirely his specific peculiarity. Indeed, in no instance should we contemplate the destruction of any of the natural faculties, and the production of new ones; but merely the modification of the strong and selfish feelings of our nature, so as to render them useful instead of injurious: like wild flowers transplanted to a better soil, if attended to with care and diligence, they may in some measure lose the rankness of their smell, and acquire a fragrance as they become improved in beauty and colour; yet their original nature is unchanged, and they acquire not any additional parts to identify them with another and distinct class or order.

Punishments.

Instead of the salutary plans for moral culture recommended in the preceding pages, various Punishments are substituted; and by a strange infatuation, these chastise-

ments differ in each case, but are all of them so modified as if they were intended to oppose (for the mere sake of opposition) any peculiar animal propensity in a child, and therefore they frustrate the genuine object of all punishment, by tending to render that a permanent defect which might have been only a temporary aberration; for, since each improper manifestation of conduct, whether it be gluttony, or anger, or lying, or any other, depends on a naturally strong propensity acting as an irresistible instinct, it is obvious that, by inflicting a punishment which causes pain, and thereby arouses the feeling to greater activity, whilst no higher motive is addressed, we render the correction not a means of amendment, but a source of greater and more inveterate delinquency.

A few instances will illustrate the truth of these remarks. We have often seen an ignorant nurse or parent attempt to cure a child of its fondness of dress, not by pointing out to her the worthlessness of clothes if the person be degraded in moral actions, and shewing how easy it would be to put the most elegant dresses on images of wood or paper; nor by any similar process of simple reasoning; but by clothing her in an old and torn dress, which only inflicts a painful sensation to vanity, and can never produce any other than a bad effect upon the morals of the child. If, in the same way, a child who is naturally fond of good eating, should either be altogether deprived of his favourite food, or have that which he dislikes forced upon him by way of punishment, could we expect any salutary effect? Or, in case a child shewed some act of cruelty, would pinching, or beating, be a convincing argument to amend such conduct? Experience answers, certainly not; for, to inflict upon the child a similar pain to that which he had

given, cannot either excite his benevolence or raise the tutor in the estimation of the offender. The great object of all punishments should be to amend, and amendment can only follow a sense of wrong: hence the best way of correction is to reason with the child upon his erroneous conduct, and to excite through his moral attributes a feeling of regret, by which means only can we expect to produce permanent and lasting improvement.

Public Punishments.

If there is a reason for deprecating private punishments, we are convinced that public punishments are still more injurious, even when confined to mere verbal chastisement. It should be remembered, that when we expose before others any error of conduct in a child which may deface the moral harmony of his character, we do not excite any remorse, but rather awaken in him a sense of indignity from offended Self-esteem, or a pained Love of Approbation; and there is a probability that either of these mental states will arouse other angry sensations, which must render useless our best intentions.

Suppose a child to be guilty of lying: the plan we should adopt is at once simple and efficient. We would not use either threats or coercion, but rather aim at exciting something of a moral conviction of the enormity of such a crime. For this purpose the child should be taken into a private room, and calmly informed of the evidence you had that the truth had been evaded; then he should be solemnly told that lying is a sin which is displeasing to God, from whom every blessing comes; and that, if such conduct be persisted in, all confidence is destroyed, as no one can rely upon the word of one guilty of this vice. Then we might direct the thoughts

of the young culprit to the selfish side of the question, by shewing the inconvenience attending the success of a liar,—that as nobody believed him, so he would be shunned and pointed at, as one unworthy to associate with. After having excited something like reflection upon the subject, we ought then to enforce the moral beauty of truth, and present strong pictures of those individuals whose memory is endeared to all men, from their having preserved through many trials and sufferings an unsullied integrity. We might also shew, by some judicious examples, that prosperity unadorned by the diadem of truth is worthless, whilst even adversity has charms if supported and dignified by it. And thus by exhibiting both sides of the question, and making it appear that truth should be kept sacred, from its own intrinsic worth, and falsehood avoided from its ugliness and its consequences, we might hope to work some certain reformation in our pupil. But to tell a child in the presence of his companions that he is "a story-teller" or "a liar," &c. and that you cannot believe him for the future, is a very likely way to render him incorrigible; for, he thinks within himself, that whether he be guilty or not, he shall be deemed so; and so abandons himself to the demoralizing habit of evasion. Besides, he has felt the blush of shame; he has been publicly exposed, so that all your good advice will be forgotten; but the disgrace will rankle, and render the disease more fixed and inveterate; and by this injudicious treatment the first error may lead to a habit of mendacity, and the child, thus degraded, will most probably in manhood become artful and cunning, always preferring acts of subtlety and concealment to integrity and candour.

And as our object is to prevent bad consequences, we would suggest a few precautionary considerations upon

the subject of negative lying. Th
is often induced in timid chil
which they are addressed af
having committed a fau
voice is elevated, and
half threat, in the
have you been do
is the sort of languag
so and so." The chil
colours up, and hesitates to
construed into evasion: the poo
corporeal chastisement; he become
from his constitutional cautiousness, and
him to shield himself from anticipated pun
making a confession of guilt, when very of
subsequently proved that he was innocent,
our injudicious threatenings had forced him t
involuntary falsehood.

It is always a good symptom of moral rectit
child hesitates in his reply, when mildly addr
some charge of an improper action. In one
the vice of lying is naturally strong, there wi
served another kind of behaviour; the answer i
and pert, and the culprit stares at his interrog
unblushing impudence. The way to elicit t
from a timid child is obviously not to alarm hi
speak with a serene aspect, and avoid any angry
expression; and, even if you should look serio
render your manner more respectable, and by su
the confidence of the child will be won, and
neither give an evasive answer nor a direct f
but, upon the promise of forgiveness, will ing
confess the fault.

There is another great error in the conduct

well to excite an interest in the
nature: we
d nobly
o endured
d thus teach them that
ition, the
w-creatures
trouble
y luxury,
o keep a
long
the
in the
ally,
with
ness,
ent
ness never to
Nothing can be more

the circumstance; and it would be equally absurd, and argue little knowledge of human nature, if an attempt were made to correct such conduct by coercive measures; for, it is very obvious that public exposure and harsh treatment have a tendency to confirm an accidental or occasional manifestation of an immoral act into a confirmed habit of crime. We should reflect, that even the adult delinquent has become vicious progressively; that there is no one, however depraved his subsequent habits, who did not blush for his first offence; and therefore we should beware of making a child familiar with this sense of shame, since it soon loses it efficacy! Man must not be treated as if he were only an animal, but the noble faculties with which he is endowed must be appealed to; for in no case will it be found judicious to degrade, whilst it usually produces some good effect to elevate, the thoughts and notions even of one who seems disposed to be naturally of a grovelling disposition. It is therefore almost an axiom in morals, "that if we appeal to the human attributes, they will ultimately influence the conduct." The greatest care should be taken of the kind of companions which an evil-disposed child is allowed to play with. If they be cunning and tricky, he will only receive lessons to indulge in his dishonesty or peculation with greater security, and thus by being able to evade, will become in time worse for the impunity with which he has evaded, detection. There are many persons so organized, that they have tendencies which may make them bad, if thrown into the society of immoral companions, who, nevertheless, might have been rendered virtuous by the influence of good circumstances, and a judicious moral education; and the means being thus placed within our power, we should endeavour to use them. In such a case as the one we are investi-

gating, it would be well to excite an interest in the moral beauties of human nature: we should relate anecdotes of men who struggled nobly amidst difficulties and the worst of poverty, and who endured their privations with cheerfulness; and should thus teach them that, even in the most destitute condition, the performance of our duty to God and our fellow-creatures ensures a calmness of mind which no external trouble can destroy; whilst, if we be surrounded with every luxury, and yet want this inward peace, life becomes too heavy a burden to bear, and the heart sickens at its own load of misery. It should then be constantly impressed on the attention of the child, "that happiness is experienced in the ratio of man's obedience to the dictates of his moral and religious sentiments, and in proportion as these sentiments are directed by a cultivated intelligence." Finally, let the child be informed how very noble is that being who makes a virtuous struggle to overcome improper thoughts, and how very nearly he approaches to the animal if he make no such moral resistance. There may be times when the best-disposed persons may feel an involuntary desire to do something wrong; yet all, in a sane state of mind, have the power of abstaining from the commission of the act, according to the dictation of the intellectual and moral attributes. And as no act which is improper can be done without injury to some one, it follows, that in proportion as we make a sacrifice of our selfish desires for the good of others, we are fulfilling our moral obligations, and shall be repaid by a delightful consciousness of integrity, a serene death-bed, and the prospects of a happy hereafter.

Before concluding our remarks on the injurious tendencies of public punishments, we must deprecate the plan usually adopted to settle disputes among children.

If they be quarrelling among themselves, sometimes enquiry is dispensed with, and they are desired in the most peremptory manner to desist from any further noise; and, although hostilities may be suspended by the mutual fears of castigation from this superior power, yet, at the very first opportunity, "the tug of war" recommences with greater inveteracy on both sides: but, even this proceeding is preferable to giving the disputants a box on the ear, and bidding them make no more noise. In both such instances the great principle of justice is violated and trampled upon, because it would have been more correct to have ascertained the nature of the quarrel, and the particular circumstances which produced it; and instead of preventing all explanation by the parties concerned, it would be most equitable to make each boy tell his own tale; but this should be done separately, that no crimination and new disputes might be elicited. Then, to corroborate the statements, the most honest boys should be selected as witnesses, and their evidence, as connected with the transaction, should be examined privately; and when any discrepance occurred, let it be pointed out to each party concerned, and an earnest appeal made to them, as they value their word and regard truth, which is trifled with, to reflect seriously on their statements, and confess which party had inadvertently made the mistake. In this mild manner, and by an appeal to their honour, the truth would in most instances be obtained. We should endeavour afterwards to make the aggressor acknowledge himself to be wrong, but upon no account should he be forced to make such compensation: rather let it come forth as a voluntary act of justice; and we are sure, if the concession were made privately, few boys thus dealt with would refuse to comply; and this amicable termination of a

dispute should be communicated to the attesting parties. As no opportunity should be thrown away when any moral obligation could be enforced, or real knowledge imparted; it should be impressed upon the mind of a child, as a sacred principle, that if a person offended or injured us, and was sorry for the act, he should be gladly forgiven. Nor need we despair of amendment, when the individual shows something like contrition. In fine, with regard to every offence, it would be most judicious to make the punishment of a child consist more in a kind of moral nausea than to excite his animal feelings by inflicting corporeal pain, which only renders the culprit intractable and vicious.

The demoralizing Consequences of Rewards.

If public punishments are objected to, it may be asked, how we can stimulate the various faculties, and train them into a proper direction, so as to make them all vigourously active and useful? In our estimation, the task is an easy one, particularly if education be commenced at a month old; and if, when the child is sufficiently advanced to comprehend simple ideas, we shew him the beauty of truth, of benevolence, and of justice; and contrast with these the deformity of lying, cruelty and selfishness, and so forth. Besides, we should indirectly call the attention to such acts as tend to elevate the moral dignity of man, and make generosity, candour, and justice, even when we ourselves may be inconvenienced by doing our duty, the constant themes of praise. If such a plan were adopted, there is no doubt but that we should possess greater power over the mind of a child, and develope his faculties in a much better manner, than by either using castigation,

or by coaxing him to pay attention to our wishes by offers of sweetmeats, toys, or money.

It should be a maxim with every Teacher, never to offer a reward in money or books, when these would be likely to be more regarded by the child, and to have greater weight with him, than a desire to please, or a sense of duty; unless, perchance, the teacher deem that sort of motives which all rewards of this kind naturally excite to be the best—motives which originate in our animal propensities, and which therefore, one would think, could not be considered by any one as likely either to be beneficial to the pupil himself, or to make his future conduct advantageous to society.

We may be told that Rewards are intended to excite the emulative instinct, and not to gratify any natural strong cupidity and selfishness; but although such be the intention, yet observation proves it to be futile, and that the very plan thus proposed for a salutary end, becomes a source of positive demoralization.

We shall, therefore, discuss the questions: first, What are the direct and indirect effects of emulation? and, secondly, What are the moral consequences of Rewards?

When two or more individuals are competitors in the same pursuits, in order that their chances should be the same, or fairly balanced, we must pre-suppose that they have similar, or nearly similar, natural capacity; but, this is obviously not the case in classes. Children of even the same family exhibit modifications of the bodily organs and of the mental faculties: and hence it is certain that in schools, where the classes are formed promiscuously, positive uniformity in intelligence cannot be reasonably anticipated, and therefore the candidates for prizes are, to say the least, not fairly matched. Besides, on the very principle of forming classes, we can

shew why there is inadvertently great injustice committed to some of the pupils; for the class is formed with a reference to either the approximating ages, or the similarity in the particular studies of the children, without any regard to the very great difference that naturally exists in the quickness or slowness of perception in different individuals, by reason of the varieties of their several temperaments, and without taking into consideration the obvious fact, that the recipient powers of the understanding are strikingly diversified in different individuals.

Suppose, for example, that a boy with good intellectual faculties and moral sentiments, but of a lymphatic temperament, should have to compete with another boy of a capacity of bare mediocrity, but of a nervous temperament; it is very probable that the latter might take the place of the former in the class, and this merely from a quickness in receiving information; although it might ultimately appear, that what the first was deficient in,—namely, a facility in acquiring ideas,—he would make up in greater or more durable retentive powers. We ask, What would be the effect on each of these boys? Would their moral natures be improved? We think not; and offer the following reasons to justify our opinion. The first boy would deem himself unfairly treated, by what he would conceive to be an invidious test to ascertain the different capacity of those in his class, because he would have a consciousness of superior talent, even if he could not opine the cause of the sluggishness of his innate faculties: he would reflect on the injustice of the case, and his dissatisfaction would be confirmed by the subsequent proof of the correctness of his opinions as regarded his own intellectual character, afforded by the fact, that when he had once gained knowledge, he was not, like his more vivacious competitor, liable to forget it! Thus it

must appear, that as his Love of Approbation and Self-esteem would be disagreeably affected, he would consider himself ill-treated, and only feel angry and vexed, and regard his tutor as partial and unkind; so that, in such a case, instead of indiscriminate emulation having a tendency to arouse the moral attributes of our nature, it causes the very opposite effect,—an effect prejudicial to both the morals and the intellect of him who retrogrades, as well as of him who advances, in this juvenile struggle for superiority.

In further proof of this inference, let us turn to the winner in this mental race. We have supposed that he had less natural talent than the boy whom he had beaten, and that his success depended on his having had a more volatile constitution. Although he acquired ideas vividly and rapidly, they were subsequently proved to be as evanescent as summer clouds, passing as mere unsubstantial forms before his "mind's eye," and scarcely exhibiting a transitory presence; so that he who at one moment exulted at a fancied possession, lost even the faintest reminiscence of the mental picture, and instead of brightness and beauty, there was merely left to him a blank prospect and an unproductive spot. What moral excellence could be expected from this species of emulation? What good could such a system effect upon even the successful competitor? We answer, none; but much real evil may result, because the animal faculties only are by this kind of discipline called into a state of activity: Self-esteem and Love of Approbation are highly excited and constantly appealed to, whilst the moral sentiments are not even indirectly addressed. The consequences are what we should predicate; the individual regards himself as a genius—he becomes proud in proportion to his superficiality, and vain of powers which

fit him for no kind of logical process; and his total want of a habit of reflection subsequently leaves him stranded on the shores of ignorance, alike incapable of being useful to himself or others.

Thus much for the effect of this plan of emulation upon the intellect; and we will now see how such a plan operates on the moral nature of the pupil. For this purpose, let us mark his conduct to his less fortunate, but more intelligent competitor, to whom he is taunting and insolent, although, probably, in an indirect manner. Indeed, the conduct would be modified according to the natural character; but still in most instances it would be mainly influenced by self-esteem and vanity. A cunning and subtle boy, although he might not openly insult, would affect to doubt the accuracy of the judgment of one whom he had beaten, and if he were deficient in benevolence, he might sneer at the supposed impertinence of his rival's hopes of success. But without multiplying illustrations, we may conclude, that in most instances there is engendered bad feeling between a victorious and a fallen competitor, the effects of which may be marked on the dispositions of the future men.

So far, then, we have glanced at the direct consequences of exciting the emulative feeling by indiscriminately placing boys together in classes, without regard to the natural difference between the capacities of the various aspirants for approbation; and we deprecate it, because its effects are always injurious, and always must be so, being, as they are, in defiance of that obvious truth, that some individuals are endowed with natural gifts, in which others are deficient, and therefore being the manifest source of injustice, injury, and unhappiness to the latter. If we analyze Emulation, we cannot discover in it

any other ingredients than the animal feelings of Love of Approbation and Self-esteem; and if we pursue our enquiry, there is evidence that the emulation used in tuition originates in the before-mentioned feelings, of which the predominating one is Love of Approbation, and this is aided and abetted by Self-esteem, sometimes as an accessary before the act, and sometimes afterwards; and although both may occasionally assist in moral improvement, they too often prompt vain-glorious acts or selfish ambition.

To prevent the animal tendency of the emulative faculty, we must strenuously avoid exciting an ostentatious display in pupils. Each child should have a desire of perfection elicited by appeals to his moral nature, with the help of that powerful auxiliary the imagination (ideality): this would prove in most instances sufficient for the purpose, without any invidious comparison between his talent and the intelligence of his associates. For this purpose, it should be early impressed upon the attention of a child, that there is great natural difference in mental capacities, and that there is a degree of criminality attributable to any person, who may fail to use his best endeavours to make the most of time for the acquisition of knowledge. And in order to add still greater force to these precepts, let a child be instructed to seek the approbation of Him who has given us such very noble moral and intellectual faculties, and who has rendered us answerable for the right application of them. Then we might expect a higher motive to stimulate a child than the one we have been combatting. The influence upon the character would be apparent at every stage of education, and fix upon the mind of the individual a sort of constitutional humility, and a deep conviction that he would have to give an account of

the manner of his employing those talents which it had pleased God to give him—not by instituting any comparison between himself and others, but according to the natural capability of each, and the more or less advantageous circumstances in which each might be placed. Without the latter reservation, we should fall into the opposite error of condemning a person for defects, which he may have had no opportunity of remedying. Ignorance and knowledge are always relative, not only to the internal capacity of mind, but to the external circumstances that have surrounded it from birth; and whenever an individual, however excellent his innate ability, is deprived of the means for improvement, in the same ratio will be his defective moral as well as intellectual acquirements. Although all men have, for example, the same number of moral sentiments, yet if a child be born among a people, savage, morose, vindictive, proud, and cruel, the circumstances he is placed in will rather deaden the moral sensations than excite them to action. And, on the other hand, if another child be born under the auspices of a mild and benevolent religion, and a high sense of moral obligation be possessed and observed by his parents, he will in all probability, though endowed even with a comparatively defective organization, be powerfully and favourably influenced by the example thus constantly placed before him. Similar reasoning will explain the other proposition, that our percipient faculties, however innately strong, require to be familiarized with all their respective natural objects, their relations, qualities, and phenomena, before we can possess a knowledge of external nature. Therefore, if a country be limited in resources, whether in natural productions, scenery, or works of art; the opportunity for information will be of course restricted;

and just in proportion as such circumstances operate, will be the relative ignorance or knowledge of the people. This argument may also be applied to cases wherein circumstances are favourable, but not made use of.

Upon this principle we contend that the proper means to be used for developing the various faculties are, to excite the moral powers through the force of example, and to act upon the intellectual faculties according to their natural laws; that is, by placing the objects of the material universe before the individual for his contemplation.

The difference in effect between such treatment and the kind of tuition too generally adopted, should determine us to use the natural modes of developing the character. It is pleasing to contemplate the harmony which would exist between children thus educated (even when there should happen to be great disparity in their respective degrees of intelligence) and made sensible of the fact, that the difference of talent was purely accidental, as far as it depended upon the individual. In this way might be cherished an affection and mutual forbearance, which would excite a fraternal esteem between companions, however superior in acquirements some might be to others. There would be no rankling of jealousy, nor any sense of degradation from incapacity, engendered. Under such moral discipline, genius might exist without pride, as a greater capacity would not be deemed any personal merit; and, on the other hand, he who was highly gifted would be habituated to think himself bound by a natural and sacred obligation to do all the good within his power, and to exhibit a practical proof of a disposition worthy of his talents, by shewing kindness to those whose natural capacity might place them at some distance from himself in the scale of moral and in-

tellectual knowledge. There is another advantage in this method, too obvious to be overlooked from its good tendency, and that is, that the benefit of a tuition apportioned to the difference of capacity will prevent much loss of time, and much painful disappointment. Instead of placing the naturally dull child in competition with one as naturally vivid and intelligent, we should treat them separately, so that the former would not feel his lower feelings roused, nor his Self-esteem too much pained, by the mortifying contrast of his own inferior powers, and his naturally degraded state, with the higher and better endowments of another boy. Hence we perceive, that by not wounding the Love of Approbation of the one, or exciting it in too great a degree in the other, a mutual kindly feeling would be generated between such companions; and, whilst the better-informed was induced to communicate any knowledge to his less-gifted compeer in a fraternal manner, there would be gratitude elicited on the one part, and affection on the other, and thus this *indirect* mode of emulation would prove more salutary than the method usually adopted,—the latter rousing animal passions in both the winner and the loser, and the former producing a most admirable effect on the moral nature of all under its influence.

That this conclusion is neither fanciful nor impracticable, will be demonstrated by a fact, which the experience of all observers who have nicely watched a number of children must recognise. At every period of tuition, boys will take the opinion and assistance of some more advanced or older boys upon the occurrence of any difficulty, provided that the teacher does not see the transaction, or is not made acquainted with it. Nor is this cautionary condition to be referred to the influence of Secretiveness, but to the negative state of Self-esteem

and Love of Approbation; and let the querist be treated with kindness by his companion, and be convinced of the strong desire to inform him or correct his mistakes, and there are scarcely any bounds to the gratitude he shews whenever an occasion presents itself. But, only change the aspect of a similar transaction; let the same boys be placed in juxta-position in their class, wherein the one at fault is publicly corrected by the other, and the latter, according to usage, passes on to the place of the former, and be sure that there will be felt a sense of degradation, and that all the bad moral consequences which we have before detailed will follow. What then could produce this difference, when it appears in both instances that the better informed boy corrected the less informed one? We can only reconcile the opposite effects by reflecting that, in the first instance, the knowledge was imparted confidentially, and that he who received it suffered no public disparagement; whilst, in the second case, he was held up to the gaze of the school, and made still more sensible of his degradation by an unfair contrast.

On the Nature and Effects of Rewards.

We have briefly discussed the effects of emulation theoretically, and we shall now proceed to a consideration of the practical details of this demoralizing system. It has been demonstrated, that by the usual manner of exciting an ambitious desire in boys we appeal invariably to the feelings of Self-esteem and Love of Approbation; and, as if it were for the express purpose of debasing individuals the more, rewards are offered as a means of making the emulation of some real advantage to the winner. Now as rewards are addressed to Acquisitive-

ness (an animal propensity which induces cupidity and covetousness), how can any moral benefit be expected from such an appeal? It is a matter of perfect indifference whether money, or books, or other marks of merit be given, the result being, in all cases, equally injurious to those who gain, and to those who lose, the prize.

We may be asked, whether merit should go unrewarded? and, if we reject the usual modes, what substitute could we propose for stimulating the tardy or the diffident child? Our answer is brief:—not by calling upon the animal propensities, when there are the nobler motives of our moral nature to be appealed to.

To avoid any ambiguity in the following remarks, it is well to state that we understand by the word Reward, a something paid or given for the performance of work which deserves an equivalent; or, according to the interpretation of the dictionary, a recompense. And, proceeding upon this definition, we in our turn would ask the parent or tutor, for what do you give the child a remuneration? Is it because you are endeavouring to render his faculties actively engaged for his own personal and future welfare? Do you think it judicious or essential to give a recompense, when not even any thing is done to deserve it? Is it not an improper notion to hold out to a child that it is *meritorious* in him to do his duty? Where an obligation exists, does it not become an act of justice to perform it? And, lastly, does a child deserve compensation because he is applying the means necessary to preserve his physical and moral health? It should on the contrary be impressed, that by properly using his faculties, he is guarding against many evils which are likely to occur when the education has been neglected, and when imperfect

information is possessed of the laws of our economy, and the objects of the external world.

We therefore condemn the giving of rewards, because they foster pride, vanity, and covetousness, and consequently because, by making these propensities the motives for all undertakings, we sow the seeds of mercenary feeling, and instil into the individual a desire for sordid lucre; and when once an avaricious tendency is induced, he will make all his future actions bend to that elastic policy which whispers, "Get money—honestly if you can;—but get it at all events;" and such deep root will this early-taught principle take in the mind, that rank and wealth will haunt his dreams by night, and be the subject of his cogitations by day, and that, too, not inasmuch as they may afford him the means of being useful to society, but simply as pandering to his lower propensities; as concentrating all that is worth pursuing; nay, as the very standard of human excellence.

Of course it will depend on the particular *grade* of a child whether, under this system of recompenses, money, or a fine house, or elegant dresses, be the boons which he contemplates with the greatest satisfaction: perhaps, if he belong to the higher stations of society, a ribbon or a star may be regarded by him as the *ne plus ultra* of human attainments. The mind being once warped and influenced by such animal desires, loses all relish for the charms of moral beauty. Such a being looks upon the poor man, even should he be graced with moral worth and dignified by a cultivated intelligence, as one who labours under the heaviest ban of almighty displeasure; and that poverty, although savoured with health and an inward calmness of mind, must be the greatest

of all terrestrial evils. Hence it is that if, in early life, such an impression be given to certain faculties, even should the youth escape from the lures of vicious gratification, and abstain from acts which may be deemed dishonest, although within the pale of the law; yet he is sure to stretch his mental powers on the rack of invention, and will, probably, dive into desperate speculations, to obtain in the quickest possible manner wealth and its supposed advantages, as the only means of happiness.

Some persons may deem these to be fastidious notions. But, let me ask them, whether they have ever marked the different effects produced on different individuals by this system of Rewards; on him, for example, who obtained the prize, and on those who were the unsuccessful candidates? Let us then mentally contemplate such a scene, and observe how the various aspirants conduct themselves: how excited they look, and what animosity is, in all probability, engendered in the conflict of the contending parties. There is no moral sentiment called forth to modify the mere animal propensities enlisted in the contest, for there is a trial for victory which gratifies Self-esteem; or there is evinced an anxious anticipation of praise, which soothes and cherishes the Love of Approbation; or the mere possession of the prize is what is most desired, and this ministers to the acquisitive propensity; but the laudable motive of cultivating their talents, and rendering them as available, as they ought to be, for individual as well as the general welfare, is entirely overlooked. Rational beings should be educated always with an ulterior view beyond mere selfish gratification: they ought to be taught to make their pursuits tributary to the cause of social happiness, and in this manner practically shew their gratitude to our

common Father, and entitle themselves to the noble appellation of moral agents!

But we must examine the subject of the demoralizing effect of Rewards a little more in detail. We will suppose that a book, or money, or some other prize, is awarded to a boy, and this, probably, for some feat of verbal memory, the repetition of a poem or a speech. What is the effect on the successful candidate? Why, he fancies himself a very clever fellow, even although his intellect be of a very ordinary kind: he is so much elated, that he either forgets, or cares very little for, the chagrin of his companions; and, what enhances his gratification, and imparts a more than common animation to his features, is the anticipated applause of the master and the spectators, so that he becomes quite intoxicated with pride and vanity at the idea that there will be a report in the newspaper of his successful elocutionary display.* All these things must tend to elevate him in his own estimation; and so engrossed is he with himself, that, just in proportion as his Self-esteem is excited, in the same ratio will his companions sink into insignificance in his sight, even should they be his superiors in all other departments of scholastic learning. The very smile of the winner is tinged with vanity, altogether differing from the placid smile of active benevolence contemplating the happiness of others: added to this, we may remark something insulting in his manner of shewing the prize; and although it may not partake of a malignant feeling, yet it is purely an animal satisfaction. But, suppose we acquit the winner of any unworthy or selfish exultation; what is the state of feeling amongst those who are the unsuccessful parties? Theirs

* This is now a *fashionable folly* in some country academies.

are, most certainly, not pleasurable sensations. They have not, and cannot have, any moral gratification; and if they simulate a species of smile, there may be seen lurking behind it jealousy, anger, and regret; and a judge of the workings of the human heart will perceive, amidst the various expressions of passion, a something which seems to imply, "I have been unfairly treated: I should have won, if there had not been great partiality:" and even should this opinion be altogether unfounded, still the Self-esteem of the losing party suffers a degree of pain highly injurious to the developement of the moral character.

Can we regard these consequences with indifference? And shall we content ourselves with a knowledge of the true principles by which we may train the embryo faculties to excellence, and yet continue to foster mere animal qualities? And do we not infringe a moral law, by disregarding the natural differences in mental capacity, and the greater or less constitutional vivacity of different pupils, and thus dealing out rewards and punishments according to the very principle of injustice, as if the clever boy were the architect of his own superior endowments, and the less-gifted one were responsible for his own deficiencies; nay, as if the latter were merely designed by nature to be a sort of foil to reflect the greater vividness of the former?

And, after all, the superiority of the clever boy depends, probably, on some single excellence arising from a very large organ, so that he may ultimately prove inferior upon the whole to the rest of his companions. If a boy have a good verbal memory (as in the example before cited), he may acquire with great rapidity, in a parrot-like manner, a poem or speech, and his talent in this respect will be more apparent when compared with one

whose verbal memory is bad; but in subjecting two lads, thus differently endowed, to an undiscriminating plan of education, we shall, by not accurately distinguishing between general capacity and partial power, lose sight of and defeat the very aim of education itself. Where there exist strong natural faculties, certain exercise will give tone and strength to their functions; and in cases where there is a comparative deficiency in mental power, although judicious exercise would increase the individual's facility in acquiring knowledge, yet to endeavour to bring him up to the exact standard of the first example would, in all probability, destroy the soundness of the mind, and reduce it to a state of fatuity. However, if we admit that there exists any thing like merit in either of these examples, and that to one or the other of the boys praise is justly due, it must be awarded to the weakly one, whose perseverance has conquered natural difficulties and deficiencies.

As a strong illustration of this position, we will suppose the case of two boys, one of robust constitution, and the other debilitated. They are separately desired to remove some packet, or other object. The weakly boy might wish to oblige, but would find himself too feeble for the task; whilst the other, without an effort, would succeed in doing it. Could we pronounce the act of the robust boy meritorious? We think not. Merit must depend on something acquired or executed, when *nature* and *circumstance* seem equally opposed to any such attempt; and if rewards or punishments be dealt out by a teacher upon any other principle than this, he exposes himself to the charge of acting in obedience to the dictates of capricious preference or unkind prejudice. According to this principle, we might remunerate the strong boy for his readiness to do as he was desired, but

not for the act itself: whilst, if the weaker boy had, after a painful struggle, succeeded in the task, he would have deserved praise for having accomplished that which caused him great inconvenience. Nevertheless, if we were convinced of the different capacities of two such persons, it would be an invidious, and even wicked, proceeding to place them together to perform the same task of muscular exercise for a given reward. The strong boy would insolently taunt the weak one with his failure, whilst the moral nature of the latter would be injured by corresponding, though impotent, passions which would be roused, and smarting under a sense of the unfairness of such competition, he would regard his master with dislike and aversion.

Having thus traced some of the effects of rewards, we may conclude with a practical application of the preceeding views. We should award to those, who disregard all selfish considerations for the sake of accomplishing some public benefit, not only our admiration, but also some recompense, particularly when great personal inconvenience has been suffered. On the other hand, we would not deny rewards to those whose organization is good, but they should not be offered as the inducement to do what religion and nature demanded from the individual; for every man is bound to make a proper use of the faculties with which he is endowed. If this be done, the individual reaps an enduring reward in the acquisition of true knowledge, and in the attainment of moral worth, without fostering his pride by submitting his boasted merits to the false standard of a comparison between himself and some other less-gifted person,—a comparison which unduly elevates the one, and as unduly degrades the other.

Employment of Time.

As the minds of children are incapable of great and continued attention, particularly during the earlier years of childhood, it is highly necessary to render their instruction more a source of amusement than a task both irksome and tedious.* And it cannot be too often impressed upon the mind of parents and teachers, that during the infantile days either a moral or an immoral direction must, according to the sort of tuition employed, be given to the faculties; and if they escape from any taint during this period, it is still more important to watch the next stage in the progress of life, as the imitative faculty then is so energetic, that the child almost automatically copies all it sees, and repeats all the words, good or bad, that it hears uttered. It is, therefore, an essential duty to choose a nurse-maid whose moral character is correct, and whose intelligence will render her able to appreciate any rules which may be suggested for the mental discipline of the children.† At the same time it may be observed, as an essential condition, that the maid should have a strong natural love for children, so that she would feel a pleasure herself in amusing them. It is a mistaken notion that it matters not how illiterate or ignorant may be the servant who has the care of children during infancy, for it

* Consult Mr. Wilderspin's excellent work on "Infant Education," which does honour to the head and heart of that worthy man and most disinterested philanthropist. The perusal of it by parents must prove highly useful.

† The Countess of Blessington, in a work on Education written by her, says, "the moral character of your nurse-maid is more important than that of your governess." That we cordially agree with her ladyship, will be seen in the text.

requires something of a cultivated intelligence to invent different games, and to keep up the attention of children without teaching them vulgar or improper actions; and before she can excite the imitative and perceptive faculties of her nursery pupils, she must have her own mind cultivated. When this is the case, she will induce a constant good humour in the children, instead of allowing them to be fretful and irritable from want of amusement, and quarrelsome with each other from inattention to their little disputes.

If we deem it important to employ the minds of children agreeably and usefully at such an early age, we think it equally, nay more necessary, to do so as they advance from childhood, and become more liable to excitement from surrounding causes. The question is, how we may fill up the time without making it irksome from a long continuance of study or relaxation, and prevent any injurious effects on the mental and bodily health. The following sketch of a plan for moral and intellectual discipline is submitted as being practical. It is based on principles drawn from, and applicable to, the different faculties of the mind, and may be varied according to particular circumstances of locality or means, and according to any modification of natural character.

It should be constantly borne in mind by the teacher, that the reasoning faculties are immature previous to the age of puberty. But, although they are then only feebly manifested, we must still appeal to them, and, at least, make our modes of tuition conformable to their laws, and subject to the guidance of their invaluable dictation. It is our business, at that time, to act more particularly upon the feelings, the moral and religious sentiments, and the perceptive faculties, and to regulate them in such a manner as to produce the best possible results, without

injuring the general health of the pupil. For this purpose, we must adopt, in principle, a plan (although more extended in its details) similar to the one proposed in the nursery: and by bearing in mind the degree of influence which the various faculties exercise at the different periods of our mental tuition, we may proceed safely in discussing further this very interesting subject. As a preliminary consideration, we must invariably recollect, that the feelings are the sources of our social and domestic relations, and require to be always directed: that the moral sentiments are the laws of our various moral obligations, which laws are written upon our minds, and appointed to govern the feelings, for which purpose the authority of those controlling powers must be constantly cherished and upheld.

To give, then, these two latter important faculties their due exercise, we must not omit to address them even during the operation of those parts of the plan of tuition which are more immediately devoted to the cultivation of the intellect. It would be well to divide both morning and afternoon into four separate periods of one hour each. First, the social; for, as affection ought to bind parents and children, we would commence with a prayer of thanksgiving for being preserved during the hours of repose: this would bind the natural feelings by the hallowed bond of religion, and make all the ties of circumstances or consanguinity more refined. Breakfast should then be taken, and it should be enlivened by mutual communications, as nothing so well promotes digestion and gives buoyancy to the spirits as the interchange of thoughts, when warmed by a moral kindness, and a sense of gratitude to the Creator for his numerous and continual blessings. The master might invariably excite such feelings in his pupils by questioning them on

the manner of spending their time, and what new facts or moral truths they had acquired on the preceding day. There would in this manner be an endless source of topics for conversation, and the hour would pass away almost imperceptibly.

The mind being thus prepared, and happy sensations produced, the pupils should commence with lessons immediately concerning the moral sentiments, ethics, history, laws, and every other subject calculated to develope our various duties, and to unfold the principles of conduct becoming to individuals dignified by innate sentiments of piety, love, charity, and justice. The master might comment on those parts of history which tell a powerful tale of the retributive justice which has punished national crimes, and in this manner apply the subject to shew that similar consequences befal persons who in any way infringe the moral laws.

The third period should be devoted to some branch of knowledge connected with either the laws of our own organization, or the nature and uses of all objects in the external world.* Supposing these divisions of time to have occupied four hours, we would then recommend, in summer, a walk; and in wet weather, or during those winter days when it would be impracticable to walk, that the pupils should have various gymnastic games to exercise and develope the bodily organs. Dinner should take place at one o'clock: conversations on the business of the morning or the occurrences of the walk might occupy the time until the hour of two. We would then devote another hour to relaxations, still endeavouring to make the various amusements sources of instruction and usefulness. Some of the boys might have patches of

* We shall detail the kinds of instruction herein contemplated, when we treat on the subject of intellectual cultivation.

ground to cultivate; and, according to the separate inclinations, they could make it subservient to botanical, horticultural, or medicinal studies. Some of them might turn with lathes, or work in cabinet and joinery work: others might carve, or draw, or paint; whilst the more advanced might be employed in mechanical inventions, hydraulics, pneumatics, chemistry, and mineralogy. From the hour of three to five, the afternoon portion of study should commence; and, in order to prevent any thing like a monotony, some days might be diversified by lessons in writing, or geography practically communicated by drawings and models of mountains, valleys, and rivers; or arithmetic, or mathematics and their practical applications to the interesting sciences of geometry, navigation, and the like. Every thing should be taught by specimens, so that a knowledge of things instead of words would be acquired by the student.

It would be also highly useful to have biographical lessons occasionally, wherein the advantages of good deeds would be pleasingly communicated, as well as the contrary results, which in some measure develope the retributive justice of God upon wicked men. In this way we might also introduce scriptural lessons, and make the former a means for moral, and the latter for religious, instruction.

Some afternoons should be devoted to scientific conversations, by addressing to the pupils a series of questions connected with the various sciences or arts, or the manual dexterity practised by them during the hour of relaxation; to which questions the answers would, of course, be given by each student whose branch of study they referred to. In this way the teacher would excite the intellectual faculties of his pupils, who would acquire solid information, and not be passive recipients of other

persons' ideas; whilst the plan would be simultaneously subservient to moral and religious purposes. Time would, under such a system of tuition, pass away at once most agreeably and profitably: the minds of all the pupils would become enlightened and refined; and by multiplying the means of instruction, and rendering the information so various as to suit the equally diversified tastes of the pupils, their several capacities would be expanded. Each of these little communities would thus be made to feel their natural dependence in society, and the necessity for a division of labour, both in works of taste and those of utility. Besides, as the mental powers would be constantly occupied, without being fatigued with dry and theoretical studies, the moral qualities would be preserved active and healthy, and the interchange of thought would supply a continual feast. There would be no petty jealousies, because each would be conscious that the others laboured according to their talents, and consequently no angry rivalry would exist, as is the case under the prevailing systems. At five o'clock tea should be had, and the time allowed for taking it might be half an hour, the boys being encouraged to occupy the intervals of eating and drinking with some general conversations, such as arrangements for the walk which should be taken for two hours in the summer evenings, and, in winter, for the various gymnastic sports. We would allow a half hour to rest whilst the supper was preparing, and this meal should take place at the hour of eight precisely; and during the meal a conversation might be conducted by the master and scholars in the way of question and answer, on some facts of history, on the beauty of certain poetical compositions, or music and painting, and in short all subjects that are pleasing rather than abstruse. At nine the

family should assemble for devotion, in a spirit of humble gratitude for the blessings of the day; after which the pupils should retire to bed.

By such discipline the mind and body would be equally invigorated, the appetite would be good, the sleep refreshing; whilst the moral sentiments would diffuse a healthy and salutary influence over the system, rendering the persons so trained buoyant in spirit and happy—such being the uniform and unfailing result of the proper and agreeable exercise of all the bodily and mental faculties.*

The superior Advantage of Public Tuition, if so conducted.

It is a fact not to be overlooked, that the above sketch of a system of moral and intellectual discipline was contemplated as being most applicable to a public establishment. For, although such a plan might be realized in the private families of the opulent, it would be impossible for individuals belonging to the middling classes to set apart from their various avocations the time essential for such a system, even if they could spare the means for providing apparatuses, specimens, and other objects. We think, however, that when there is a preference for private education, a plan, embracing as far as possible the principal objects of the system we have suggested, might in some measure be realized, the great design being to call forth the moral sentiments by keeping the individual constantly and pleasantly em-

* This sketch is by no means a theoretical one. The greater number of the *subjects* recommended for study, and the mode of dividing the time between the *useful* and *agreeable*, are adopted in most of the schools conducted on the benevolent Pestalozzi's plans, of which the effects are proved to be highly efficacious.

ployed, and by rendering the acquisition of knowledge a sort of pastime and amusement.

It must, nevertheless, be confessed, that a public school would produce a still greater quantity of positive good to each individual, and prepare him by the intercourse of so many dispositions and tastes to act well his part among the bustle and turmoils of real life. But one great and essential reform is necessary, namely, that of the greater part of the present masters themselves. They must be not only men of moral character, but also possessed of highly cultivated minds, together with a natural love of children, and such a degree of active benevolence as would make them choose the noble task of teaching from preference, and not either as a means of getting money, or as a last resort when all other speculations had failed. Yet this change, so much to be desired, cannot be expected to take place, until society shall elevate the teacher to his proper rank, it being the most dignified of all professions, if rightly understood. If, then, masters can be found in public schools qualified for the responsible undertaking of training the higher faculties (moral and intellectual) upon some system like the preceding, we do not hesitate to state, that, under all circumstances, a preference ought to be given to such public schools, it being our conviction that, in most instances, the pupils are likely to make greater progress in their studies, and to receive a finer polish of mind there, than if their faculties were allowed to be developed without that collision so essential to rouse them into activity, and to originate and draw forth those original notions and bold thoughts, which seldom characterize the solitary scholar. We are aware that there may be in such establishments some naturally evil-disposed boys, whose insinuating precepts and bad example might in some

instances injure the morality of unsuspecting and amiable youths: but, if the master were himself virtuous and intelligent, he would soon detect such boys, and, if neither advice nor instruction could amend them, he would consult the benefit of the many, and discharge the offenders. So that, upon the whole, it is evident that the advantage of public schools is more than commensurate to any draw-back on account of occasional evil.

The moral Power of the Master who gains the Confidence and Affection of his Pupils.

The Master who possesses the qualifications which we have described, enjoys an almost unlimited power over the minds of his pupils: he irradiates their understandings with a moral light, and infuses into their dispositions a positive preference for virtuous actions: he conducts himself towards them with dignity and kindness, and gains their confidence by his manifest solicitude for their moral and intellectual respectability, never appearing with an austere countenance, but winning their veneration and love by his placid and affectionate manners. Hence, upon all occasions, they regard him more as a father and friend, than as a rigid task-master. He has no need to enforce their attention to their studies, as they willingly pursue them: and they, on their parts, feel more reluctance to disoblige such a master, or to act in any way contrary to his instructions, than they would do if the rod were freely used, and the teacher ruled his little commonwealth with a despotic severity. The reason is obvious: he rules them "by love;" and they repay his love by studying to oblige him in all things; but, no vigilance can, under the coercive system, prevent

boys from taking every opportunity to evade and bid defiance to what they deem a tyrant's wishes.

There is nothing speculative in the foregoing remarks: we have fortunately seen a few practical illustrations of their truth. How easy then it is to lead boys, if such conduct be adopted! Their faculties are like twigs, soft and yielding, and capable of being twisted into any shape required, if they be worked by a skilful workman. But when he is ignorant of the nature of the materials upon which he has to operate, much irreparable injury must be done or hazarded, and instead of something beautiful and symmetrical, the result of his ill-directed labour will, most probably, be deformed and worthless.

We may conclude this part of the subject, by pointing out a few more of the practical advantages that may be obtained by the master who once gains the confidence of those entrusted to his charge. First, when any fault is committed, there would be no attempt to conceal it. In most instances, a voluntary confession would be made, because no bodily chastisement is feared: the master remonstrates, indeed, but he does it in the kindest manner, warning the little culprit of the danger of temptation, and pointing out the almost imperceptible influence by which bad desires gradually tend to enslave us. Secondly, by abolishing corporeal punishments altogether, the boy's animal propensities are not addressed, and he will listen with an attentive veneration to advice when mildly given, feeling, as he does, assured that his tutor and friend only desired to see him good, happy, and respected. Lastly, let the pupils clearly perceive that the master's greatest pleasure consists in doing his duty to them—that he is ever ready to answer their questions, and disposed to treat them as beings for whose welfare he feels the greatest possible solicitude—and he

will find no difficulty in guiding them at will by his intelligence, in bringing them to regard integrity of thought and rectitude of conduct as the great end of tuition, and in making them desirous to become practical illustrations of the truth of his precepts by the brightness of their own examples.

CHAPTER XI.

RATIONALE OF MORAL CULTURE.

We have seen that the force of example may produce more beneficial or more injurious effects than is generally supposed, if we may judge by the contrast between the professions of men and their actions. They appear to think, that saying or repeating precepts that are good is sufficient: and we can only reconcile the discrepance between their actions and words, by the truism, "that it is easier to talk of what is right to be done, than to do it at all times." But, it is a most momentous as well as interesting fact, that whatever acts we do and children imitate, (whether the acts be instigated by the propensities, or the higher faculties), produce certain physical effects on the organic instruments of the mind themselves. That there is no impunity in violating a moral law, the most superficial observation will confirm; for although it may be possible that we ourselves may conceal the real nature of our characters in our generation, and appear to the world as if we obeyed the higher motives of human actions, still, in case of our infringing them, the effects will, most assuredly, be visible on our offspring. Look at the neglected and hapless children of the sensualist, and you will find incontrovertible evidence, "that the moral as well as the physical sins of the

parent are visited upon his offspring,"—a consequence which must be communicated through the organization.*

We may obtain, upon this principle, a rationale of moral culture, inasmuch as we shall prove that all moral changes modify the form and volume of the brain. To comprehend this knowledge, so as to derive a practical advantage from it, we must consider the present state of the HUMAN FAMILY, not only as regards the external configuration, but also the vast difference in the moral and intellectual character,—a New Hollander and a Sir Humphrey Davy, for example; and yet a minute investigation of the human frame testifies that, however marked the diversity, we must still regard the human race as ONE SPECIES, all the parts of the body and the nervous system being essentially alike, only modified in every individual; and that all these extraordinary changes in the physical forms and moral nature of men have been produced in the lapse of ages by the organic laws. It is most consolatory to reflect, that, by acquiring a knowledge of these laws, we have it within our power to improve our fellow-creatures in an almost unlimited degree.

* The following objection to this doctrine is often made by individuals; viz. "that if it be true that the brain or its separate parts grow, when excited by moral stimuli, the surrounding skull, which is an inflexible substance, must receive a corresponding alteration, so as to mark the organic change." It should be remembered, that this section is intended as a popular rather than a scientific exposition of the organic laws generally, but nevertheless directing attention to the operation of similar laws upon the organs of the mind (brain). We therefore think it right in this note to state, *that the skull does undergo a decided change*, not by being forced into the particular shape by the soft brain acting upon the hard substance, but by the process termed "absorption;"—a process constantly going on throughout every organ and tissue of the body, but most rapidly in those most exercised; and the increase is always in the ratio of the exercise through the process termed "deposition,"—facts which have induced some physiologists to assert, that our material frame is entirely renovated every seven years!

Although we regard mankind as a single species, yet, for practically developing our views, we will divide them into four classes, and thus exhibit the general causes which render the two extremes of human nature so very conspicuous.

First Class—Are those degraded races of the earth, whose moral and intellectual faculties have been neglected for ages; also *idiots* and *depraved* children of all countries. On examining their brains, it will be found that the *basilar* and *occipital* regions, the seat of the animal propensities (feelings), predominate over the other faculties.

Second Class. This is very numerous, being composed of individuals with moderate natural intelligence, very active propensities, and with little moral power to control them.

Third Class. This class consists of persons in whom the various propensities, the moral sentiments, and the reflective group, are nearly equally balanced. They form a very numerous body in most civilized countries, and become either good or bad by the preponderance given by education to either set of faculties.

Fourth Class. This forms the natural nobility, and is a very inconsiderable portion of the human family. The brains of such gifted beings exhibit the reflective and perceptive faculties, with the moral and religious sentiments, greatly superior to the animal propensities.

At first, it might appear a task of great labour to reconcile to our reason the fact, that the two extremes, the first and fourth classes of human beings, could possibly have been derived from the same original parents. To look upon the poor depraved and degraded savage as the natural brother of the noble-minded philosopher, we might be told, may read well in poetry, but is

parent are visited upon his offspring,"—a consequence which must be communicated through the organization.*

We may obtain, upon this principle, a rationale of moral culture, inasmuch as we shall prove that all moral changes modify the form and volume of the brain. To comprehend this knowledge, so as to derive a practical advantage from it, we must consider the present state of the HUMAN FAMILY, not only as regards the external configuration, but also the vast difference in the moral and intellectual character,—a New Hollander and a Sir Humphrey Davy, for example; and yet a minute investigation of the human frame testifies that, however marked the diversity, we must still regard the human race as ONE SPECIES, all the parts of the body and the nervous system being essentially alike, only modified in every individual; and that all these extraordinary changes in the physical forms and moral nature of men have been produced in the lapse of ages by the organic laws. It is most consolatory to reflect, that, by acquiring a knowledge of these laws, we have it within our power to improve our fellow-creatures in an almost unlimited degree.

* The following objection to this doctrine is often made by individuals; viz. "that if it be true that the brain or its separate parts grow, when excited by moral stimuli, the surrounding skull, which is an inflexible substance, must receive a corresponding alteration, so as to mark the organic change." It should be remembered, that this section is intended as a popular rather than a scientific exposition of the organic laws generally, but nevertheless directing attention to the operation of similar laws upon the organs of the mind (brain). We therefore think it right in this note to state, *that the skull does undergo a decided change*, not by being forced into the particular shape by the soft brain acting upon the hard substance, but by the process termed "absorption;"—a process constantly going on throughout every organ and tissue of the body, but most rapidly in those most exercised; and the increase is always in the ratio of the exercise through the process termed "deposition,"—facts which have induced some physiologists to assert, that our material frame is entirely renovated every seven years!

Although we regard mankind as a single species, yet, for practically developing our views, we will divide them into four classes, and thus exhibit the general causes which render the two extremes of human nature so very conspicuous.

First Class—Are those degraded races of the earth, whose moral and intellectual faculties have been neglected for ages; also *idiots* and *depraved* children of all countries. On examining their brains, it will be found that the *basilar* and *occipital* regions, the seat of the animal propensities (feelings), predominate over the other faculties.

Second Class. This is very numerous, being composed of individuals with moderate natural intelligence, very active propensities, and with little moral power to control them.

Third Class. This class consists of persons in whom the various propensities, the moral sentiments, and the reflective group, are nearly equally balanced. They form a very numerous body in most civilized countries, and become either good or bad by the preponderance given by education to either set of faculties.

Fourth Class. This forms the natural nobility, and is a very inconsiderable portion of the human family. The brains of such gifted beings exhibit the reflective and perceptive faculties, with the moral and religious sentiments, greatly superior to the animal propensities.

At first, it might appear a task of great labour to reconcile to our reason the fact, that the two extremes, the first and fourth classes of human beings, could possibly have been derived from the same original parents. To look upon the poor depraved and degraded savage as the natural brother of the noble-minded philosopher, we might be told, may read well in poetry, but is

utterly at variance with positive truth! We do not, however, contemplate any difficulty in making good our proposition, that all men are brethren; that we have all sprung from one parent; and that the present difference results from an almost universal ignorance of the organic laws by which all such changes are effected.

Causes of Moral and Intellectual Degradation.

It will be generally admitted, that a child, whose natural organization would rank him in the third class, would, if he should from various causes be neglected in his education and have only the vicious example of bad companions constantly before him, become a degraded character. Let us then suppose that such deteriorating principle should continue to operate for ages, and we may fairly conclude that the progressively increasing moral degradation would ultimately reduce the individuals springing from such a parent as low in the scale as those of our first class. What renders our conclusion still more reasonable is, that there have been, and are, known instances of such extraordinary changes in the moral character of an individual, *even during his own life*, as would almost make it impossible for us to identify the person, as he had been in the days of his youth, with the subsequent man brutalized by intemperance and sensuality. And further, we have known instances of men who once bore respectable characters, and were highly intelligent, but who, having committed themselves by some act of immorality, have, instead of endeavouring to regain their self-respect, ultimately sunk into a state of utter abasement. These latter cases would be altogether inexplicable, without the solution we have ventured to give of a change in the organization

of the brain itself. Nor is this difficult to account for by the operation, in the first instance, of moral influences, and next, by the reaction of physical causes. The sense of disgrace is always strongest in the most cultivated, because they dare not look back on the eminence from which they fell: hence they endeavour to forget themselves by every species of degrading excess; and it is certain that all excesses immediately affect the organization, and disturb the mental and corporeal functions; and if these causes of derangement be continued, consequences like those we have stated are sure to follow.

*Illustrative Case.** The Rev. ——— was a strongly marked instance of the degradation which may in time destroy the most gifted minds, and bring upon them ruin and disgrace. These consequences may be often traced to various causes; as, for example, to expensive habits; to sensual excesses; and to that accursed destroyer of health and morals, gaming! To the latter cause may be traced the aberration of conduct of this reverend gentleman, whose history should warn every one to guard against the commission of the first sin, of which the ultimate consequences are beyond the limits of even probable calculation. This gentleman was the author of a highly philosophical and ethical work, and was at one time esteemed a moral as well as intelligent being. If we contrast his early character with what he became in his latter days, we shall not identify him, so fallen and lost was he to every motive of a moral nature, rushing on from one vicious act to another, until he became the victim of his animal propensities, and, in a moment of self-loathing, finished his career of misery by an act of self-murder! What a moral lesson is this

* A sense of regret and delicacy make us suppress the name.

history! To see man descending by insensible degrees from the heights of philosophy and learning, to crawl like a reptile in the haunts of vice, and there miserably perish by his own hand!

We reserve our proof that the organic laws are alone capable of explaining such changes, until we have inquired whether man may be improved by any natural means.

The natural Means of improving the Human Race.

If the brain is the seat of the mental faculties, it would appear that in cases of low organization we have only to excite the weaker powers by precept and example, and that the individual would improve, because the instruments of the moral sentiments and of the intellect would become increased in size, and more active, from exercise.

From having tried experiments on the natural organization, we deem ourselves authorised in stating it to be an indisputable truth, that it is possible to improve by these means the individuals of even our second class. Can any thing be more interesting to the philanthropist than the well-grounded conviction, that he possesses the certain means of thus benefiting his fellow-creatures,—of thus exalting their condition by the education of all their faculties? Could volumes of ethics speak a language more forcible and consolatory? The following cases will render these truths more obvious.

Case 1. A child of two years old exhibited a stubbornness and viciousness of temper, which it was quite distressing to behold. He would kick and beat his parents, who, being ignorant of the cause of his temper, used to shake and beat him again, thus exhibiting in

themselves the same vices which they were endeavouring to correct in the child. An eminent Phrenologist was consulted, whose advice was in accordance with the principles propounded in this volume respecting the organic laws of the brain, and the result proved successful. The parents were recommended "not to excite the passions of the child, but to treat him with constant kindness."* As the moral sentiments were defective relatively to the feelings, it was also recommended that the former should be stimulated by positive means. "Make him your almoner," said the amiable philanthropist who was consulted, "and let him see only noble and just actions; and you will soon mark a difference in his disposition." This advice, which was directed to stimulate the organs of the higher faculties by positive education, completely answered its intended purpose, and the result afforded signal confirmation of the truth of the doctrine, that such moral changes are produced by corresponding changes in the organic instruments, for the head of the child underwent an alteration corresponding to the improvement in his disposition and temper: the moral group increased, and that of the propensities decreased.

If we derive consolation from a case like the preceding, surely the following one must still further convince us of the value of true knowledge, and particularly as regards correct principles of mental philosophy; for, if a change of character can be effected in manhood, surely it must be doubly easy to effect such a change in the mind of a child.

Case 2. An individual endowed with intellectual and

* The result which took place was in strict harmony with the organic laws: the instruments of the feelings, when too active, will, if they be not exercised, decrease in size and in activity.

moral organs not above the average, had been neglected in some points of his education; and having been left, when rather young, to be his own master, he became vitiated by the force of example, so as to become almost a slave to his lower propensities, and was thus led into difficulties inseparable from animal indulgencies. Nevertheless, he had been religiously and morally instructed; and although the dictates of good principles might have been partially disregarded in the hey-day of youth, still they seemed to have exercised some little influence over him. In his opinions, he was much acted upon by those he associated with, so that he was alternately a believer and a sceptic, but ultimately he had become altogether an unbeliever! In this state he continued for years, and having heard something of Phrenology, he determined to examine it for himself. The new philosophy pleased him: he reflected upon the fact, that man has religious organs, and consequently must have been intended to be the recipient of religious knowledge: this consideration rendered him less sceptical, and he ultimately admitted the necessity and advantage of religion. It is an interesting fact, that his head underwent an organic change, corresponding in some degree with the moral metamorphosis which had taken place in his character.

Changes in the moral Character traced directly to the Brain.

We cannot resist making a few reflections on the two last cases we have described, in which there is undeniable evidence that some alteration was produced in the cerebral instruments, corresponding to the change in the disposition and temper of the individuals.* Can any

* Mr. Deville has in his collection many similar cases.

thinking person be so disingenuous as to deny the practical advantage of knowing these results, when the means by which they were produced are fully explained? If so, we should regret either his want of candour or want of integrity. If, notwithstanding the efforts of good men, so much crime and folly exist, we ask, would it not be judicious to try what might be the result of a system of education which places so much power within our reach? Hitherto all has been left to empirical plans, and hence the instances of failure must be attributed to a want of some certain principle or theory. Granting, for the sake of argument, that our physiological views are not altogether so generally available as we assert them to be, still the metaphysics of Phrenology* open clearer views of the plans best adapted for moral culture than any other: for that science "describes the nature of each fundamental power and its relative value; and developes the order of the mental processes, and the periods at which the different faculties are manifested."

If, however, the various powers of the mind were independent of the brain, education would produce neither good nor bad effects. In the example cited in the first of these two cases, we must encounter the difficult alternative of regarding the brain itself as mind (it having undergone a decided alteration), unless we conclude with the Phrenologists that it is the instrument of the mind. If we deny both these positions, we must contend that the alteration in the character was quite accidental, and that change in the size of the convolutions of the brain was merely a coincidence which proves nothing, because we are unable to demonstrate the necessary connection between the moral and the physical phenomena. It

* Many writers have adopted the phrenological metaphysics without using their nomenclature!

should, however, be borne in mind, that all our boasted knowledge is equally inductive, and that if we reject the process and the conclusions of analogical reasoning, we must give up all pretensions to even matter-of-fact science, and return into a state of barbarous ignorance! The parents themselves, in the case under consideration, perceived that the temper of the child was altered, and that, as his disposition improved, his head increased in height; and whether they were warranted in considering these two facts as evidence of something like cause and effect (the change having been predicated), we leave it to common sense to determine. Our own minds are satisfied as to the correctness of this doctrine by repetition of the experiments; so that we venture to recommend the same practice to others, before they reject so potent a means of improving children, and they will find that they may ameliorate the moral and intellectual nature of their offspring with as much certainty as we can make sure of strengthening the physical organization by particular exercise. How, indeed, could education effect a change in the disposition, if we had no power over the mental instruments? Can we produce any alteration in the mind or soul? We commit an error both in fact and reasoning, if we suppose it possible to do the latter, or if we deny the capability of accomplishing the former. No one will assert that education does not affect the character; yet if we suppose that this was to be accomplished by no other means than by a direct action upon the soul (which is impossible), all that we could say would be, that the child was stubborn and passionate, but that in time it lost these abuses and animal tendencies. Nor does our last case in any way lessen the difficulty of solving these mental phenomena; because there the soul had, in the first instance, good impressions,

which, although they were subsequently enfeebled, it not only recovered in the end, but even improved its former state. And if we turn to the first of the three cases, it appears that the soul was originally noble, moral, and intelligent; but, a single act of gaming injured it so much, and excesses subsequently so completely altered it, that not a bright spot was left to mark its former splendour.

These are but a few of the inconsistencies and contradictions, which men must commit who have no system of mental philosophy for their guide; and it is surely a fact very much in favor of the truth of Gall's system of metaphysics, that it enables us to comprehend what is otherwise an inexplicable enigma; that is, it furnishes an intelligible cause as a solution of the changes that occurred in the before-mentioned cases, carefully distinguishing between that cause and its necessary effect, and proving "that the soul itself remained unaltered during all the various mutations from bad to good; but that the brain, which is the seat of the mental faculties, underwent certain modifications strictly physiological."

The very admission, that education does improve an individual in the greatest degree when he is practically excited to think and act, instead of resting satisfied with mechanically receiving a certain routine of tuition, implies some alteration in the *sensorium*, or some greater activity of the mental organs. Reflection upon the subject would lead to this inference; but, when facts determine the truth, and, in all cases of moral and intellectual improvement, the effect seems so constant, that effect must be attributed to some unerring cause. If the amended state of an individual invariably corresponds, as it does, to some altered condition in his cerebrum, can any evidence be more decisive that there is

nothing accidental in the result? What a mighty step, then, is this knowledge towards the improvement of the human race! Who shall be able to calculate its ultimate importance, and the blessings it will disseminate, wherever human beings are found!

Illustrative Anecdote.—We cannot refrain from relating an anecdote in confirmation of the above views: it is told on the authority of a learned and excellent man, Dr. Philip, a missionary of Cape Town. "Some of the christian converts among the Hottentots, who had been instructed in the morality of the gospel,* and received various kinds of useful knowledge,† gave ocular evidence of their advancement to a higher place in the social scale by the fact, that their children's heads were better formed in the moral and intellectual region, being nearer the configuration of the European than of their own native caste."

We have thus endeavoured to unfold, in as condensed a form as the subject would admit of, the practical means of moral culture; and we trust that we have demonstrated that, although the sensual, moral, and intellectual tendencies are born with us, they are capable of being powerfully modified by the kind of direct and indirect education which they receive. If this principle be acted upon by legislators and teachers, we need not despair of correcting the moral abuses which now, like pestilential diseases, infect the abodes of men. For this purpose, however, the following condition must be observed, and the following considerations be borne in mind. First, that the instruments of the moral and religious sentiments must be early and constantly cultivated. Secondly,

* Their moral and religious sentiments were excited.

† Their perceptive faculties were cultivated.

that if these faculties remain dormant from neglect, however naturally strong the innate tendencies may have been at birth, there will not be any adequate manifestation of moral and intellectual capacity. Finally, that the laws of mind are analogous to those which regulate the external senses. Exercise is, in all cases, essential to the health; and as the views developed in this volume are based on an assumption that this rule holds equally good with a reference to the mind, we request the attention of our readers to the following short demonstration. Suppose a child at birth to have weak eyes: if proper means were used, the sight would improve and become stronger. But if another child, born with excellent eyes, should be brought up in the dark, it would either have very bad sight or become blind, because the eyes would have been deprived of their natural stimulus, the light; so that, in this latter case the same consequence would take place as if the child had been originally born with a defective vision. All persons would agree in deprecating the latter treatment as improper, and even criminal, and the child would be deemed a victim of shameful ignorance or wilful neglect! Similar remarks apply to the manner of treating the cerebral instruments, the brain. A bad organization may be rendered better by education; and a good one may lose, by neglect, the traits of its original excellence. Now, it would be illogical to admit the analogy of the effects, but to deny that of the causes; in both cases to trace the blindness to an actual injury done to the visual organs, but not to trace the loss of mental power to the virtual injury done to the brain. The man who seeks after truth, will decide at once upon the similarity of those causes, and cannot fail to be impressed by such striking facts with a deep conviction, that it is one of the most important of

all his duties to study the laws by which these momentous changes are effected, and to bow down submissively to the fiat of the Creator! For, however prejudice may oppose this knowledge, it must (as part of the eternal and immutable truth of God) ultimately prevail over ignorance, and realize the greatest possible good for the now-divided and degraded portions of the great human family.

The rationale of *habit* is simple and worth attending to. If we call particular faculties into constant activity, we thereby give them a greater tone and energy, so that they ultimately acquire a facility in the performance of their functions, apparently without an effort. Is not the act of speaking in an educated adult a strong illustration of this fact? In infancy, the tongue and vocal apparatus are tardy, and the verbal power (organ of language) immature: we continue to exercise both the instruments and the mental power, and a *habit* is formed of speaking rapidly, without any consciousness of the action of the various muscles and nerves employed, and without even waiting to recollect the words required to represent our ideas, which words seem to present themselves spontaneously. The act of writing, of playing musical instruments, and so forth, as habits, are also explained by the fact that repetition gives great facility to the bodily and mental instruments by the activity, strength, and vivacity induced through their constant exercise. Thus the man who walks little soon tires when he makes the attempt to walk; and the mind, unused to mental exercise, soon suffers fatigue when long engaged.

CHAPTER XII.

ON THE MEANS OF CULTIVATING THE INTELLECTUAL FACULTIES.

ALTHOUGH we have, during the preceding portions of this volume, given an occasional glance at the means of improving the intellectual condition of mankind; yet, the importance of the subject is such as to deserve some more particular notice. For, it will not be denied that the education of the reflective and perceptive powers on correct principles is decidedly essential to the moral dignity of man, and to his elevation to his proper and exalted state of an intelligent being. For this purpose, we should sedulously cultivate the perceptive faculties, commencing at the early age of infancy, and then we might calculate on the best possible results. Nature dictates to us the plan to be pursued, and we shall do well to choose those natural periods of tuition which observation proves to be instituted for the best and wisest ends.

We need scarcely remind our philosophical reader of the importance of the perceptive faculties, inasmuch as they are the seat of the powers of thought, and furnish true data for ratiocination. They take in the vast and the grand in the external world, as well as the most minute portions of matter; and, assisted by the various senses, they are the only sources of man's knowledge:

hence their laws should be comprehended, as also the exact function of each perceptive power; and whether the order of their developement be fixed or adventitious. It will be anticipated, that we reject the absurd hypothesis of chance in any of God's works; and in reference to these invaluable faculties, we have the testimony of daily experience that they do not form any exception to the rule; in proof of which we venture to cite an interesting fact in the natural history of thought, a fact which is corroborative of our views, and of the phrenological metaphysics. We allude to the deaf and dumb, who, in their mental operations, obey, according to our views, the laws of the human mind. They give the *substantive* invariably before the *adjective;* that is to say, they perceive and describe the object first, before they notice any particular quality it may possess;* and this seems to be consonant to the order of nature, because we must invariably think of the existence of an entity, before entering into the consideration of any qualities which distinguish it from any other. If, for example, we write with chalk on a black board these sentences, "good man," "slender horse," "high tree," and intimate to the children that they must represent to us in pantomimic signs their ideas of these sentences; it will be seen that, in every instance, they first describe the object, and afterwards the quality by which it is particularized.

We shall endeavour to shew the advantage of knowing the order of thought, (after having obtained a knowledge of the fundamental powers themselves), particularly in cultivating the various arts of civilized life, and the different sciences which tend to enlarge our means of rational gratification.

* Let the reader refer to remarks on the perceptive faculties.

The objects to be had in view, in training the perceptive faculties, are two-fold: to give positive knowledge, and to make all information a means of rendering the individual good, useful, and happy. The first may be easily realized, by inculcating comprehensive truths in reference to man's organization and economy; his relations to his God, his fellow-creatures, and to the external world. This may appear to some persons a mere speculative view, but we shall shortly point out how all this may be communicated by properly apportioning the kinds of instruction suitable to the various perceptive faculties, and to the progressive periods of their developement. It should be remembered, that we are not attempting to produce a finished system of either moral or intellectual education: all that our most ardent desire aims at is, that the hints thus collected together may induce some master-mind to grapple with the subject, and systematize a plan which, like the light of heaven, may warm and gladden the intellectual horizon of every clime where man may be found. Yet, as we deem ignorance the most fertile source of all the evils which afflict individuals or communities, we offer an abridged catalogue* of the subjects essential to be taught in every plan of mental cultivation, particularly as they belong to the peculiar province of the perceptive powers of the mind. The following, then, are those subjects:—the nature and uses of mineral substances: the laws of vegetation, diet, temperance, and cleanliness: the effects of moisture on the body, and its consequences on the organs of digestion; and all atmospheric influences, either as causes of health or sickness: the laws of animal life, comprehending circulation of the blood, and diges-

* Particulars will be entered into when we treat of the Fourth Stage of Education.

tion and assimulation of food: the action of imperfect functions of digestion in disturbing the mental health, and the re-action of the latter in aggravating the primary source of derangement: the principles of natural and experimental philosophy: and, lastly, a general knowledge of the laws of mind, with all their various phenomena. We are not so visionary as to expect that these comprehensive truths can be inculcated in the present state of society, or by private tuition on an enlarged scale. A system of instruction so large and comprehensive must be begun by the governments of countries, the natural patrons of education as well as of legislation, and the responsible agents for the happiness or misery of the great mass of the people. It is no argument to say in opposition to these views that they have never been recognised. How long have mankind ventured to think at all? And now, as the national mind has received a leaven of knowledge, we trust in God that the whole may ferment, and produce the greatest possible good to the greatest number: then we may hope to see lecture-rooms in every town, thrown open to an enlightened public; and then we may anticipate that patriot professors will be paid by governments for the purpose of enlightening the people, and of teaching them that the way to be good and prosperous is to acquire knowledge, and abide by its injunctions.

If the mind of a student were well stored with facts relating to the three kingdoms of the naturalists,—the mineral, the vegetable, and the animal,—and their almost infinitely diversified phenomena; and if he were aware of the advantage, even in a selfish point of view, of knowing the laws of those grand divisions of nature, we should have the very best guarantee for the re-

spectability of his moral character. For in proportion as a man comprehends the laws of God as manifested in the beautiful order of creation, his moral sentiments are most likely to become the exciting motives of all his actions; and in a mind well regulated from infancy, there is always uppermost an irresistible desire for the attainment of true principles and sound deductions: every thing tending or likely to mislead the judgment is regarded with dislike, or with involuntary suspicion; and a determination is formed to resist all the allurements by which the delusive phantom of fashion, or of what the world calls pleasure, might otherwise tempt the individual to stray out of the high road of common sense.

Nor should we omit to repeat, that, in order to acquire such a condition of mental superiority, we must endeavour to allow to the bodily and cerebral organs such due exercise as may insure the health of both. This blessing may be secured to the one by a due proportion of activity, and by attending to the general laws of physical improvement; and, to realize it to the other, we must exercise the mental faculties so as to preserve a due harmony between them. For, if occupation and exercise produce such salutary influence on the corporeal organs, how much more must these conditions be necessary to give man his proud pre-eminence over all other organized beings! These being admitted as well-known truisms, we shall conclude by urging the parent to take care that the mind of the child is devoted to subjects which must perforce engage the moral and intellectual faculties; for, if these be not brought into play, the individual becomes the prey of animal excitements, alike destructive to his mind and body.

Remarks on the Necessity of modifying the Principles of Tuition.

It must have been already recognised as a principal feature of our plan of tuition, that we think it necessary to modify the *kind* of instruction to suit individual cases, and therefore that much must be left to the discretionary judgment of the teacher. We need not, then, insist on the necessity of giving lessons adapted to the capacity of the child, since experience informs us how very injudicious it is to force the powers of the pupil by arbitrary rules.

Nevertheless, the plans still acted upon are so inconsistent as to retain the old mode of teaching in classes, and thus giving uniform lessons to every child indiscriminately. That the pupils do not realize what had been anticipated from them, is but a natural consequence; for, the dull and stupid boys act like clogs to the more vivacious and intelligent, whilst the latter are liable to excite the enmity of the former, from the injudicious comparison which is thus unwittingly made between them. We have often witnessed the chagrin of the master, and the disappointment of the parents, in such cases: but these evils would be avoided by giving to the pupils subjects that they are able to comprehend, and in which they would then feel some decided interest, it being an incontrovertible fact, that we learn with the greatest facility all parts of knowledge in which we take some degree of pleasure, and that what is acquired by force and coercion often becomes quite obliterated from the mind, leaving not even the faintest trace of our ever having been acquainted with the subject.

It is, then, a vital error in intellectual tuition to regard all children as of equal capacity. If such were the case

why are there such frequent failures in the efforts of students? We reply, that each person is so individualized by his organization, that he naturally modifies the subjects he is taught by some peculiarity of his mental constitution. If it were otherwise, if all minds were alike, like a sheet of blank paper, (as Locke asserted),—there ought not to be any striking difference in the intellectual acquirements of various pupils placed under the same tutor, and who should undergo a similar course of study and of moral training: facts, however, innumerable prove that the greatest possible differences exist in even the same family. This discrepance between theory and practice would be immaterial, if it did not interpose great obstacles to the advancement of society in true knowledge, and thus retard the means of happiness to a large portion of the human race.

On the contrary, if we recognize the principle of innate difference from birth, the results will be found to be strikingly confirmatory of our view, because we clearly perceive a something which gives to each mind a characteristic identity, as well marked as is that of the face, the voice, and the bodily configuration. And as we could not expect a dwarf to possess as much strength as the broad-shouldered, robust man of six feet, so we may be assured that no one can attain any eminence in science or art, unless his natural organization gives him the capacity for so doing. Surely then some positive difference should be made between the plan intended for the education of the dwarfish mind, and the one to be adapted to the vigorous and energetic intellect.

Genius.

Before we enter into any consideration of the particular details of our subject, we would offer a few

remarks on those precocious specimens of natural talents which we designate Genius. Although there are certain characteristic signs which strongly mark such gifted beings, yet it is equally true that the philosophy of Genius is scarcely understood. Very clever persons observe the vividness of the minds of such children, and the quickness with which they acquire information,—qualities which are too conspicuous and remarkable to escape notice; and most of these persons marvel at the circumstance, and appear satisfied with remarking, "that it is very curious!" What is Genius? We reply to the question by saying, it is an early developement of particular faculties, which manifest their own innate strength before they can have received any influence from education. The gifted individual may have had a bias to act communicated to his mind by some incidental circumstance; as when a spark drops by accident on some ignitable matter, a sudden blaze bursts forth, but the brilliancy is often of but short duration, and is succeeded by an ominous darkness, owing to the too rapid combustion.

There are many cases upon record of men who have been highly gifted by nature, but who, in their boyhood and youth, did not betray any great indication of mental power: the mellowness of maturity has seemingly been required to develope their innate superiority. In the instances which we have had opportunities of examining, the head has been much above the average size, and such individuals have broken through every obstacle of circumstance and defective education, and have ultimately attained eminence in some art or science. We might give the history of many noted divines, lawyers, poets, painters, and others, in confirmation of this statement; but every reader will recollect examples without any such enumeration.

It would be a task of insuperable difficulty to undertake to give an explanation of these two different classes of mental phenomena, if we were to reject the physiological elucidation; namely, that the one, that of the infantile genius, is the result of an early developement of the whole or part of the brain; and that in the other, that of the adults, the individuals have been also naturally well organized, but that the brain in their cases was tardy, requiring the stimulus of poverty, or great competition, as powerful exciting causes, to rouse it into full action—an effect which has frequently been marked in the bursting forth of genius under popular commotions, in which instances it was the events which stimulated the faculties, and stirred them from their torpid and quiescent state into vigorous life and motion.

There is also another testimony favourable to our view, namely, that persons will often make their ultimate choice of a pursuit contrary to the one which education or necessity had imposed upon them. But, this knowledge of the philosophy of genius should determine us to give a course of instruction suitable to the predominant powers of the individual; for, although in the instances alluded to above, persons have in the end exercised their latent talent, yet if we could personally mark the difficulties which most of the unbefriended sons of genius have to incur, and the incessant efforts which they must make,—if we could follow them into their secrecy, and visit their humble and obscure dwellings, so that we might be witnesses to the constant struggles they endure between the bent of their restless genius and the unpalatable daily task to which they are tied and bound down by untoward circumstances,—we should meet with many sinking into unmerited insignificance from despondency occasioned by the bitter draughts

of adversity, their nervous systems exhausted, their digestion enfeebled, whilst their faces present deep furrows of anxious thought, and the pallid hues of that sickness of the mind—hope deferred; and yet they still continue to hope on, and many are the hours snatched away from sleep to be devoted to their favourite pursuit. What adds to their turmoils is, that in many of such cases the perceptive powers have been cramped by misdirected, as well as neglected tuition; and by a strange infatuation, which one might almost call instinct, in proportion as the mind is fettered by such adverse circumstances, does the self-taught student become eager and restless for an unshackled liberty, pining at a fate which has thus doomed him to a pursuit so contrary to his natural inclination; and, should the result terminate at last in favour of his most ardent desires, there is a probability that he will be then rendered almost incapable of enjoying the fruits of his labours, by the debility which these efforts have occasioned him. When we have witnessed such scenes, then, and only then, can we appreciate and sympathize with the indescribable miseries of such a mental conflict.

There is a very obvious difference between the results arising from the neglect of moral instruction and those which take place when the intellectual powers receive no determinate kind of education. We have seen that, when the affective faculties are left without proper culture, the feelings, naturally much more energetic than the moral sentiments, tyrannize over the latter; but, the perceptive faculties, when they are powerfully developed, in some measure educate themselves. For an individual cannot prevent his eyes seeing the innumerable objects which surround him; and as the impressions of vision and of the other senses are immediately carried to the brain, he

is thus constantly acquiring some sort of knowledge, and in this way becomes the self-taught artist, mechanic, and the like.

But, let us not be charged with making contradictory statements, because we say that one class of faculties may be exercised and improved without any direct instruction, whilst another class, in the same case, becomes almost too feeble to produce any positive good to the individual: this is but asserting what observation and experience confirm. Does not the *moral* nature of man deteriorate when it receives no direct cultivation? and this arises from the fact, that the moral sentiments have not been acted upon by their proper stimuli. If, however, the perceptive faculties be good, they have a certain tuition forced upon them—the very wants of the man make him distinguish and acquaint himself with various objects; he ascertains their qualities, and learns their application; and thus necessity tends to give his perceptive faculties some, at least, of their natural stimuli. Yet we by no means regard this natural process as being of equal efficiency with the various and exact information impressively taught by an intelligent master.

The Order of the Perceptive Faculties, as they are developed, and the Use of this Knowledge in Education.

It must be confessed that it is desirable to place a pupil in his natural station, so that he may exercise his talent according to the bias of his innate powers; and that a system of mental philosophy which would give the teacher the means of discriminating the grades of talent would confer upon him a vast power, the result of which could scarcely be calculated. This desideratum is, we think, supplied by the system advocated in these

pages, and which is destined to produce the greatest possible good when men shall learn to appreciate it. We shall, therefore, briefly point out the practicability of these views, and the ultimate advantage which will be realized by their adoption.

In order that education may be rendered most effective, it must be conducted according to the natural order of the developement of the perceptive faculties, and so arranged that the subjects inculcated shall have reference to the various periods of that developement. There is no difficulty in ascertaining these mental seasons, and, as they are of primary importance, it is judicious to do so; particularly as the empirical modes usually resorted to are attended with much labour and inconvenience, and often with partial or total failure.

The order we allude to is demonstrable in the child at the dawning of intellectual consciousness, and in the mental operations of the deaf and dumb. Let a child be observed from birth, and it will be obvious that his first perception is induced by *Individuality*,* for the child takes notice of all objects, and recognises particular persons, evidently through the activity of *form*, which faculty enables him to distinguish different individuals by some difference in their general contour. Every succeeding day we may perceive some fresh indication of the percipient exercise of the child, by the expression being somewhat more intelligent. For instance, colours attract his attention, and when very bright, he turns his head towards them, sometimes endeavouring to catch them. When desirous of any other object, he will put out his hand to measure the distance, and if the thing which he craves be given to him he drops it, because his

* Refer back to the description of the functions of this and the other perceptive faculties.

organ of gravity is not yet active. Melody seems also to influence his ideas; we may observe him listen to sounds, and smile when they are pleasant and lively; but, when they are harsh and disagreeable, he will pout out his lip, and utter a most unmusical cry, sometimes rising to a scream, and is not easily pacified.

These, then, are the perceptive faculties which are active in the infant during the first few months, namely, *Individuality*, *Form*, *Size*, *Colour*, and *Melody*; and although he becomes more lively at a twelve-month old, yet that circumstance can only be attributed to a greater maturity of the above faculties, and the consequent increase of information, as to simple existences. The child, whilst under two years old, shews little knowledge of locality; neither does he possess any information respecting events and phenomena: finally, he does not reason upon either his own actions, or those of others.

Therefore, nature, like a kind instructress, points out to us certain periods proper for teaching the child, and we should do well to attend to her suggestions. From our having done so in some measure, and from a conviction of the practicability of this knowledge in tuition, we venture to specify these desiderata for the benefit of reflecting individuals. We would divide the time devoted to intellectual education into four distinct periods, a division which may be made without any arbitrary or empirical rules. There are certain physical changes (the periods of dentition, for example) which would enable us to assign to each stage these well-defined conditions of the bodily organization, as positive *data* by which to regulate the order of mental tuition, it being observed that cerebral organs are developed in periods corresponding to the signs of infancy, childhood, youth, and manhood.

First Stage. The age of about a month or six weeks

may be taken as the period of the first dentition,* and the first set of teeth is completed at two years or two years and a half, which constitutes what Dr. Spurzheim calls the period of infancy. During this time we should communicate the names of familiar objects; point out their forms, size, and colour; but it would prove useless to attempt to teach the uses of things, except of the most familiar and obvious ones, as, for example, the members of the body.

Second Stage. From two years and a half, to the sixth or seventh year, the first set of teeth remain; and, during this period of education, we should inculcate the knowledge of certain events suitable to the then improved condition of the mental faculties; the days of the week, the number of weeks in a month, and the like. We could also call the child's attention to the utility of many new objects; the changes they undergo from their native condition, when formed into dresses, furniture, and the various luxuries of civilization. If care were taken not to fatigue the mind, the child would not be conscious of any task: he would rather feel a desire for information, and such tuition would be rendered a source of amusement and recreation.

The systems of the venerable Pestalozzi, and of that zealous philanthropist Wilderspin, may be rendered as useful in the nursery and the parlour as in the school-room. Their efficiency is so palpable, that we may avail ourselves of them upon all occasions. At table, we might describe the natural history of the animal

* To prevent any quibbling upon this subject, we may state that our division of the periods is not strictly exact, as the teeth have commenced formation before birth; but the time chosen, although somewhat artificial, will be useful in practice.

and vegetable substances composing the meal; the process of making bread; the countries from which the spices were brought, how they were procured, and similar facts. To initiate children into some of the results of science and art, we could relate how hemp grows, and the mode of manufacturing it into linen; the laborious operations of weaving, and the process of bleaching the table-cloth so as to give it such a glossy whiteness. Native iron and silver might be shewn to the young pupils, and the mode of smelting and refining metals could be practically exhibited; and this would enable us to give many interesting lessons, such for instance, as upon the manufacture of knives and steel articles, and the effect produced by art in converting silver into so many useful things.

Third Stage. We have arrived at a very important period of intellectual education, and if the elementary information be not imparted at this time, the pupil will be greatly retarded in the progress of his future studies, so very essential to enable him to attain a respectable rank in after-life. The period at which we date the *third stage,* is at the second dentition; that is, from the seventh to the twelfth or thirteenth year; and should be devoted to the study of more of the works of nature, that is, a wider range of objects and their uses, the places at which they are found, their comparative scarcity or plenty, and such minutiæ. We would in this manner convey a particular knowledge of botany, mineralogy, and other sciences.

From what was recommended at the second stage, it may be readily supposed that the pupil has already acquired general information of most of the substances comprising the above two highly useful departments

of science. Our present object should be to excite some desire for arranging this knowledge; and, in commencing a system of classification, we might make it subservient to geological and geographical instruction; for, in speaking of the various substances, we should be naturally led to treat of the countries from whence they were brought. The advantage of classification is still more obvious in an intellectual point of view; because isolated objects, if very numerous, tend rather to confuse, than to strengthen the memory; whilst it is equally obvious, that by initiating the student into a habit of making scientific groupings,—as, for instance, genera, species, and varieties,—we excite within him more enlarged notions than it is possible for him to acquire by any diffuse and unmethodical description of the almost innumerable objects in the animal and vegetable kingdoms.

We would also now commence teaching a general knowledge of the laws of animal life; the vicissitudes and changes produced by atmospheric causes; of diseases caused by uncleanliness and intemperance in eating or drinking; and finally, the happiness, the serenity of mind, and good robust health, enjoyed by those who act in obedience to the natural laws.

Language.

We have not, in these general views, made any remarks on the particular study of language, as the teacher capable of instructing youth in such a system of moral and intellectual education must be acquainted with his own vernacular tongue, and with something of other languages, from the scientific technicalities he

is obliged to use. It would therefore follow that, without any direct tuition in grammar and composition, the mere names of so many objects, and the various and multiplied terms expressive of their qualities,—the numerous verbal expressions to designate phenomena, events, and the circumstances in which so many diversified beings must be placed,—would form altogether a very voluminous vocabulary.

It is contemplated, that as no term would be used but which would have a fixed meaning, and as the pupil would be told whether the name of an object was fanciful, or whether it originated in some particular quality, he would by such means become acquainted with the real value of numerous words, and would be prepared for grammatical lessons, as giving him the means of amplifying his knowledge, rather than as an odious and laborious task, apparently inapplicable to any end of utility or amusement. A mind stored with real knowledge would naturally desire to have an exact meaning applied to all words, and, even when they were used in a figurative sense, the pupil would attach to them some positive association, so that he would avoid any thing like ambiguity or confusion; and in order to express his diversified information with perspicuity, would be obliged to make himself acquainted with the nicest shades of all abstract terms; and, in proportion as he became acquainted with the philosophy of language, he would cultivate even its details, for the interest it would afford him; and, instead of the idiomatic forms of the sentences being deemed a subject of indifference, he would be convinced that it was necessary to attend to such grammatical rules, in order to avoid any misconception of the meaning of oral or written composition.

Difference between Knowledge and "Learning."

Whatever may be the destined pursuit of an individual, whether trade, commerce, agriculture, or any other, it is very evident that an education which should impart a vast quantity of actually useful information would prove, even in a selfish point of view, a matter of real advantage to him. Being acquainted with the elements of science and the nature and uses of most familiar objects, he would be little likely to become a mere speculator: having observed the harmony of the natural laws, both as regards organized bodies and the uniform certainty of cause and effect, which may be constantly witnessed in all the processes in the vast laboratory of nature, he would feel a satisfactory assurance that a previous arrangement and a steady application of his knowledge would make him successful in his pursuits. If such a person suffered a partial failure in an experiment, his extensive information would supply the means of correcting the mistake, and of discovering the true principle by which he could produce the desired effect. Not so the man of words: he must often be left to accidental plans, and be deceived and disappointed. So true it is that "knowledge gives power," the power by which we may render existence a source of happiness to ourselves and others. The individual, if only "learned," in the common acceptation of the word, may be useless in a great measure, and frequently he suffers great personal inconvenience from his ignorance of even the ordinary operations of nature. But contrast this man, with his boasted liberal education, with one who has had communicated to him the kind of instruction we have hinted

at: the superiority of the latter will be obvious on the slightest inspection.

We do not wish, by this statement, to depreciate the value of classical literature, but simply to shew the misery which may be occasioned by an exclusive attention to such subjects,—an exclusiveness which admits the individual to a sort of learning which is only partially useful, and shuts him out from real knowledge, which is always available, and always likely to save its possessor many an idle dream and visionary pursuit. When the perceptive faculties command an extensive range of objects, the individual may be said to be constantly gaining fresh and valuable information; and such is the intrinsic worth of his acquisitions, that they do not interfere with his previous knowledge, but, on the contrary, rather enhance it. It must therefore appear, that a positive injury is done to by far the greater number of persons who, according to a narrow-minded system which is unfortunately too prevalent, are compelled to devote themselves to the study of languages; particularly if we reflect on the grievous sacrifice of time required to obtain a respectable acquaintance with the classics. The mind becomes in some measure cramped, and many of the most useful faculties remain in a state of comparative inactivity; whilst *verbal memory*, like an especial favourite, engrosses all attention to itself.

In these remarks we more particularly refer to the linguist, who may be satisfied with merely knowing a number of words, and would avoid confounding him with the profound philologist, who pursues the study as a means of comprehending the philosophy of language, and of ancient laws and institutions, and hence must have a greater number of his faculties engaged. What we deprecate is the absurd system of making the study

of the Greek and Latin languages an essential and principal part of a system of general education in our public schools, and thus teaching the classics to every boy indiscriminately, whether his *verbal memory** is naturally quick, or dull and tardy. But, even when there is a natural talent for languages, unless the future pursuit of the pupil is likely to be benefited by such a course of instruction, it is the greatest folly to enforce it, merely because custom sanctions and fashion demands it. The student of classical literature may be regarded as a passive recipient of a knowledge of events totally different from those by which he is surrounded, and these are made still less exciting by being communicated to him in a foreign idiom. His ideas are English, and his associations are English, and therefore he should be taught the nature of the multifarious objects which surround him in his own country, and should not be forced to con over a grammar, and have his perceptions *blunted* by the monotony and irksomeness of his tasks. We may be told that, if these notions were generally admitted and acted upon, the books of the learned ancients would remain sealed, and the stores of knowledge which they contain be lost to us: this, however, would be an erroneous and extragavant construction of our observations, which are only directed against the exclusive study of classical literature, of which even the warmest advocate would admit that medicine, chemistry, and the natural sciences are more indebted to modern philosophers than to his favourite authors of ancient times.

But, to return to our immediate subject. Even when a youth has so far advanced in his studies as to read with some facility the works of the classics, yet from the incidents they treat of being so unlike those of daily occur-

* See organ of language.

rence, he is liable to lose, in a comparatively very short time, all recollections of them; and an imperfect reminiscence is not sufficient to keep alive his interest, or to produce any decided influence over his moral habits. But should this not be the case during his novitiate, yet it is more than probable that it will be so, when the mind comes to be occupied with the cares and duties of more matured years. There is no kind of knowledge so evanescent as languages, when circumstances prevent our daily use of them; and the man who wishes not to forget them, must devote much time to keep up his acquirements, and this not occasionally, but constantly; and we fear that these necessary repetitions must infringe upon hours which ought to be very differently employed.

And, after all, what does it avail to the mechanic, the artizan, the tradesman, or the agriculturist, whether they can express themselves in more than their own language? The truth is, that he who possesses great knowledge, may easily learn to communicate his ideas both clearly and correctly, and even elegantly, too, in his vernacular tongue; whilst it is also an obvious fact, that although the superficial man may be acquainted with many languages, yet his fertility of words cannot hide the poverty of his ideas and his deficiency in solid knowledge. The greater number of persons seem to forget that words are only conventional sounds, the mere symbols of ideas, to enable us to communicate our thoughts to each other. This truth, however, is very much lost sight of in education, otherwise the child would be practically taught the knowledge of things and phenomena, instead of being instructed to utter sounds conveying not to his mind any meaning for want of the former kind of knowledge; and yet in this predicament is every child placed who reads, and spells, and automatically learns his English

grammar, and then, whilst he is ignorant of the merest rudiments of the arts and sciences, makes an immediate and unnatural transition to the study of a foreign and disused tongue,—a study for which he is totally unprepared, in which the learner requires peculiar aids which most masters themselves are generally either incompetent or too prejudiced to give, and which, by a strange perverseness on their part, they conduct as if it were their aim to stunt the growth of the human intellect, and actually make it retrograde.

We grant that these causes of objection are likely to be, to some extent, done away by the practical lessons of the system of Pestalozzi and the infant schools, particularly as regards the rudiments of instruction. But this is lost sight of in the subsequent training of the faculties; and grammar, geography, and arithmetic are so mechanically taught, that they cannot be mentally comprehended by the pupil. Is it to be expected that a child should understand the various and refined sentiments of the best authors?—that he should appreciate the closeness of the reasoning, and the perspicuity, elegance, and appropriateness of the expression? We unhesitatingly reply that this is impossible, unless written words can pourtray thoughts with more accuracy and force than a picture.

An important but indisputable fact seems not to be generally recognised, or to be most negligently disregarded, by teachers, namely, that the minds of children are mere blanks in regard to knowledge, until they have opportunities of exercising their various perceptive faculties through the assistance of the senses, and, by such means, acquiring some information respecting the material world, and the localities and nature of its different objects. When, therefore, things or sentiments, which

the pupils have neither seen nor felt, are the subject of composition, they cannot have any clearer conception of the meaning of the words employed in that composition than would be experienced by the most ignorant and barbarous minds.

As a very striking illustration of the philosophy of these views, as regards the minds of the uninformed, we offer the following portion of an interesting anecdote related in Mariner's Account of the Tonga Islands. "The mode of communicating sentiments," says the writer, "was an inexplicable puzzle to Finow (the king of the Tonga Islands); he took the letter again and examined it, but it afforded him no information. He considered the matter a little within himself, but his thoughts reflected no light upon the subject. At length he sent for Mr. Mariner, and desired him to write down something. The latter asked him what he would choose to have written; he replied, 'put me down,' and he accordingly wrote 'Feenow,' spelling it after the strict English orthography. The chief then sent for another Englishman, who had not been present, and commanded Mr. Mariner to turn his back and look another way; he gave the man the paper, and desired him to tell him what it was: he accordingly pronounced aloud the name of the king, upon which Finow snatched the paper from his hand, and with astonishment looked at it, turned it round, and examined it in all directions; at length he exclaimed, 'This is neither like myself, nor any body else! where are my legs? how do you know it to be I?' and then, without stopping for any explanation, he ordered Mr. Mariner to write something else."

There are some practical facts which this anecdote suggests. The first and most obvious one is, that a written foreign language is unintelligible to a foreigner,

because the individual does not know what ideas the signs represent. Secondly, this is equally true of a spoken language, with this difference, that sounds are still more fleeting than signs, because the former are lost as soon as uttered, but the latter may be contemplated and examined, as we are told king Finow did the writing of Mr. Mariner. Thirdly, if these observations are correct in reference to a foreign tongue, they are also true, in a certain degree, when applied to the native language of an individual: for the words which are uttered by such a person, though he has them firmly impressed upon his memory, and can repeat them when called upon to do so, convey no real information to his mind, if he be unacquainted with the positive meaning which ought to be mentally associated with them. But, granting that such student knows his own language, we must still confess the absurdity of supposing that, when he is instructed in a foreign one, he has any greater quantity of information merely because he has accumulated a greater stock of sounds and signs. Words, however necessary to convey our thoughts, never can give us ideas: to prove that this is the case, let us trace the mental process of a person acquainted with more than his native tongue; and we shall find that he invariably thinks in his own language. Hence it is that foreigners complain of Englishmen talking the English language so fast, and that we do the same of them when they address us in their own tongue. The reason is manifest: if we attend to the conversation of a foreigner, we unwittingly and almost unconsciously carry on, at the same time, the operation of translating his words into their equivalent expressions in our own language. And this will explain also why we are apt to attribute a rapidity of speech to a foreign individual, when, in point of fact, we have, during the time re-

quired by him to perform one process, been performing two processes ourselves,—thinking of the words addressed to us, and translating these words into our own vernacular expressions; and in our replies we adopt precisely a similar process, but merely reversed: we think our answer in one language, our native one, and translate the sentences into another, the foreign one we are speaking at the time; and, indeed, it is very natural that our minds should, in such a case, revert back to the expressions we were taught to use in the very earliest dawnings of our understanding.

We therefore contend, that the study of the classics cannot give to the general student any real and useful knowledge; and, on the contrary, there are many instances to prove that a profound acquaintance with the sciences may be obtained without a proficiency in any foreign language;* whilst it is a matter of perfect notoriety that great "learning" may exist without any positive information. We might select many examples, but will only call attention to the case of the almost idiotic Jones, the linguist of Liverpool, a man who knew ten or twelve languages. He seemed to have a morbid appetite for words, which he devoured with a voraciousness that excited astonishment; and, although he so far assimilated them as to retain their varied sounds, still he had no intelligent conception of the meaning of the terms he used. But, is there any person extensively acquainted with society, who has not seen excellent mechanicians, and proficients in natural history and other sciences, almost illiterate?

The following acute and just observations may be quoted as a pertinent conclusion to this chapter, which they illustrate in more respects than one: they add a

* The technicalities may be accurately known from dictionaries.

double weight to our opinions upon the subject of the ancient languages, because the author of them was himself a most accomplished classical scholar:—

"The ignorance of the Chinese may be attributed to their language. A literary Chinese must spend half his life in acquiring a thorough knowledge of it. The use of metaphor, which may be said to be the algebra of language, is, I apprehend, unknown amongst them. And as language, after all, is made up only of the signs and counters of knowledge, he that is obliged to lose so much time in acquiring the sign, will have but little of the thing. So complete is the ignorance of this conceited nation, on many points, that very curious brass models of all the mechanical powers, which the French Government had sent over as a present, they considered to be meant as toys for the amusement of the grandchildren of the Emperor. And I have heard the late Sir George Staunton declare, that the costly mathematical instruments made by Ramsden and Dollond, and taken to Pekin by Lord Macartney, were as utterly useless to the Chinese, as a steam-engine to an Esquimaux, or a loom to a Hottentot. The father of Montaigne, not inaptly to my present subject, has observed, that the tedious time which we moderns employ in acquiring the language of the ancient Greeks and Romans, which cost them nothing, is the principal reason why we cannot arrive at that grandeur of soul, and perfection of knowledge, that was in them."

Observations on the partial Cultivation of the Perceptive Faculties.

An individual possessing an organization which would give him a decided preference for music, painting, mathematics, sculpture, or any other art or science, might

still have his perceptive faculties directed to other and diversified pursuits, particularly if the natural order of their developement should be followed. It is by no means incompatible with the mental laws to assert, that the same faculties may be exercised on many very different subjects; for example, *Individuality* may be active upon trifling and unimportant details and idle gossip, or it may be directed to the study of natural history, chemistry, and to some departments of natural philosophy. Although, then, we give to the most strongly developed faculties our greatest share of attention, when it is anticipated that they will enable the student to attain a respectable proficiency in the profession or pursuit for which he seems to have a natural predilection; still we might so educate the weaker powers as to render the mind of such a person more perfect, and graced with a sufficient degree of general information, to make him an intelligent and agreeable companion. It has, by dint of constant repetition, become now a sort of proverb, "that no one can gain perfection but on a single subject;" and, as this remark has been so frequently reiterated, we may be supposed to be presumptuous in gainsaying this ancient opinion. Our judgment, however, is formed from observations upon a number of individuals, who may be termed men of almost universal acquirements. We have seen what an endless variety of subjects Individuality may be exercised upon, taking cognizance, as it does, of all objects in the external world,* and being essential to the knowledge of the mere existence of every individual thing in the whole range of nature and art.

* See Individuality.

Similar remarks are applicable to the other perceptive faculties; for, even *time* and *melody*, although often exclusively cultivated for music, are highly important in reading poetry and prose, and also in elocution and oratory; whilst *time* is also essential in furnishing us with dates and chronological science.

It must be admitted, that no such correct notions relative to our innate capabilities could have been entertained prior to the discovery of Gall; and that this and many other errors in education will continue to exist, until his system of mental philosophy shall be recognised. It may be as well to enumerate a few of these inconsistencies, which still operate in the most popular systems of the present day. For instance, whenever an individual evinces a decided preference for any particular mental qualification, it too frequently occurs that he is constantly exercised upon the single pursuit, "it being most judicious to encourage natural genius," and being thus left to his innate bias, he becomes deplorably ignorant upon all other subjects.

Such a course of instruction must prove highly prejudicial to the mental character of the individual, rendering him narrow in his views, and inducing an inveterate indifference to every thing unconnected with his one favourite pursuit,—a state of mind which exposes him to the inevitable danger of incurring all those innumerable inconveniences, failures, mortifications, and miseries, the inseparable consequences of imperfect knowledge.

But, it would not accord with the main object of this work to enter into minute particulars upon this subject; for so fertile of materials is the investigation "as to the degrees and shades of talents produced by different combinations of the fundamental faculties," that it would

require volumes merely to enumerate them. All we aim at is, to call attention to the advantage of being acquainted with a correct theory of mental philosophy, and to shew the utter impossibility of rendering moral and intellectual education completely effective, if the teacher himself have not taken true principles for his guide, without whose friendly aid he is like a pilot without a chart and compass in an unknown sea, whose bark every wind buffets, and drives in a direction contrary to the one he wishes to take; so that, although there is no lack of labour, yet, from his mere ignorance of the coast, he not unfrequently suffers shipwreck, and perishes upon the rocks. We shall, therefore, make a few general remarks on the necessity of attending to the combination of the various intellectual faculties, premising that we select one promiscuously; for, so correct are the metaphysics of Phrenology, that it would be utterly impossible to adduce a case which they could not be competent to explain, by pointing out the separate faculties which had produced any peculiar species of talent. Let us take the painter. What are the innate powers essential to constitute the artist? If he be confined to individual objects, such as men, animals, vegetable productions, and the like, the following faculties must be well developed and cultivated; *Individuality, Form, Size, Colour, Imitation,* and *Constructiveness:* but, if he should have a preference for landscapes, then *Locality* must be naturally strong; and if historical painting should be the chosen subjects of his pencil or brush, then he would require, in addition to all the other enumerated mental powers, *Eventuality, Order,* and *Time.** Yet, it must be obvious that these same

* See the functions of these several perceptive faculties.

faculties might be exercised upon numerous subjects unconnected with painting, and this without either injury or obstacle, nay, even as important aids, to his pursuit after success and eminence in that profession. Because, although the sciences or other arts might not seem to be immediately useful to the painter, so as to improve him in this particular pursuit; still it would be an easy task to prove that, in proportion as an artist had a wide range of knowledge, so would his productions bear a stronger impress of nature, and display beauties which the uncultivated mind would never have seized upon. We know that *Individuality*, for example, takes cognizance of general objects; and if it had been directed by the painter to notice and study rocks and mountains, and to observe the lichens, shrubs, bushes, trees, and other vegetation, which occupy particular countries, of what advantage would not that knowledge be to him in his art? We should have the mountains so accurately delineated in a picture, that their nature and productions would be instantly recognised by the geologist. And suppose that *Individuality* and *Form* were directed to observe the shapes of clouds, and other atmospherical phenomena, would not the artist make the tempestuous horizon, or the still serene sky of a summer's evening, more in harmony with nature's most finished pictures? And, if he devoted to the laws of optics attention enough to enable him to know the different influences of the various media through which the rays of light may pass, the *chiaro-scuro* would assume the appearance of reality under the magic of his brush, and represent that pleasing illusion to the eye so perfectly, that we should fancy we were contemplating a Lilliputian effort of nature when gazing on the canvass. *Locality* would be well employed on geography and topography,

and chronological facts would be remembered by *Time*; whilst *Eventuality* should be devoted to history and the diversified circumstances unfolded in the biography of both good and bad men. Such an education would give full scope to the faculties of the individual who should make historical painting the subject of his professional avocation, so that his innate genius, being variously exercised, and by this means enriched with abundant stores of knowledge, would be most conspicuously developed, and raise him to an honourable post in the lists of fame.

We might have urged other considerations, as, for example, that *Individuality* could have been directed to the study of metallurgy and chemistry, branches of science which would be very useful in the applications of colours, and as a means of correcting tints and shades, by mixing such as were compatible from a certain affinity, so as to produce more durable colouring than is to be found in the best pictures of many ancient and modern artists. Indeed, it would require a long essay to point out the positive benefits, even in this single profession, of knowing what are the immediate objects of each fundamental faculty; but, we have been compelled to content ourselves with offering a few mere hints upon this one art, in illustration of what might be accomplished in every other art, science, and occupation, by such a system of intellectual education. And, without any reference to these comparatively narrow considerations, what, let us ask, is equal in value to positive knowledge? Can the pleasures of the senses, or the gratification of our propensities, confer the kind of happiness which is derived from a comprehensive acquaintance with the wonderful and stupendous works of the Creator? One answer will suffice for both questions, and it is such an one as the experience of every individual can verify;

namely, that the pleasures of the feelings or propensities are insatiable, so that after their hurried indulgence, they cease to give satisfaction; but the pleasures of intelligence are enduring, and capable of becoming part of ourselves; we enjoy knowledge when present, can turn back to it and mentally re-enjoy it, and we can look forward to do so both in this life and to eternity. Hence it is that we should delight to see all the world intelligent; for, extensive knowledge is a certain antidote to listlessness, dissatisfaction, and aërial castle-building; and, although last, not least, it dissipates that dreary state of mental darkness, infidelity,—a kind of moral incubus engendered by what has been appropriately denominated, learned ignorance.

CHAPTER XIII.

FOURTH STAGE OF INTELLECTUAL EDUCATION.

HAVING already entered into certain moral and intellectual considerations as to the means of cultivating the mental faculties from infancy, our present object is to refer to a still more important period of tuition.

At the age of twelve or thirteen there are twenty-eight teeth, but the whole permanent set (thirty-two) are not completed until the eighteenth year, and sometimes even later than this; however, this physical characteristic forms a well-marked period to be guided by, and may be taken as a general rule, since it comprises within its limits the adolescent or fourth stage of intellectual education.

We are convinced that, at this age, greater attention and vigilance are required than at any preceding period; and, as regards its consequences both to the individual and the community, it is by far the most important part of life. Early habits are either confirmed or corrected by the notions acquired in youth; and the bias which is then given to the mind will decide the probable character of the future man. It should be remembered that, at this period, new ideas are induced by constitutional changes which exert a powerful influence over the actions. But, it will depend on the intelligence and moral rectitude of the individual, and

on the kind of education which he has received, whether or not he is to become a useful or a worthless member of the community. If the intellect be vigorous and comprehensive, and all the circumstances by which the incipient man is surrounded have a favourable tendency to rouse the higher faculties, we may calculate on the best results; but, on the contrary, should the *human faculties** be feeble, and the being be abandoned to the influence of his propensities, then we may anticipate the mere sensualist, giving way to animal influences, which hold him in a complete state of vassalage, and inflict upon him the degradation and infamy attendant upon folly or crime.

There are other general considerations connected with this period, at which the faculties are under peculiar excitement which must be restrained and allayed by moral means; otherwise the individual is left exposed to both mental suffering and corporeal debility. He ought to be informed of the physical causes of this excitement; for ignorance upon this subject may tend to embitter the future, and render his existence itself a burthen.

Happiness depends on the health of the body and the sanity of the mind, and these blessings it is in the power of most persons to obtain by the simple means of exercising the moral and intellectual attributes. Misery, on the contrary, is the sure doom of every individual who is abandoned to his animal propensities! But, if education were guided by the physiological laws, reasoning man would blush to confess, that he had not in every instance a moral controul over his actions.

From these remarks it is evident that we think that

* Religious and moral sentiments.

no system of education can be estimated as practically useful, if it omit to communicate the above cautionary information. It is a duty we owe to human nature to point out, by our experience, any dangerous paths on the road of life, and thus fore-warn the youthful traveller against being lured from the safe way of moral rectitude. We should particularly guard him against the specious arguments of bad companions, who might endeavour to persuade him to quit the straight path for some present gratification. Let him avoid the first temptation, and he will pursue the journey of existence without danger; but, if he yield to the seductive counsels of the dissolute or the idle, he is sure to be benighted and to suffer disappointments.

If the parent or tutor have gained the confidence of a lad prior to this period, the latter will feel grateful for such advice, and will listen with peculiar interest to any reasons which may be urged to enforce a rigid observance of the moral laws. Should he feel any difficulty in his efforts to abide by these laws, he will candidly confess it, and impart in an ingenuous manner his various sensations; but it requires great care, and some knowledge of human nature, to render the instruction applicable to his particular case. All the mental faculties become at this period very active: it is well if the moral and intellectual attributes have been cultivated. There is a freshness and vividness in all youthful impressions, and it is important to turn this quality to good purposes. Present, then, to the enthusiastic contemplations of the young man the wonders of creation, and the boundless goodness of Him who produced them. It is proverbial that youth delights in novelties; and if, in the preceding stages of education, the mind have been enriched with elementary information, we have thereby ensured a pre-

[illegible] for the pleasures of the intellect, and a moral [illegible] for those of mere sensuality.

There are other essential considerations to which we shall allude, inasmuch as they are not sufficiently attended to, even if they be acknowledged to be correct. Whatever instruction is given to a youth concerning his moral obligations, should not appear like dictation: it should rather assume such an argumentative form as may lead him to seek after the object recommended by his own spontaneous choice, and from self-evident conviction. In our intercourse with a youth, we should show him that we feel an earnest interest in his welfare, so that any opinion we might offer him would be received as the friendly advice of an elder companion, whilst it exercises such an influence over him as if the thoughts had been his own: so that in this way they might become the motives for his actions. Nothing so much tends to destroy the confidence between the teacher and a pupil as even the semblance of an overbearing authority. We should also recollect, that a youth has a disposition to be unmanageable, because he has an inward sense of self-importance; or that, upon all occasions, he becomes in this period of his transition a very difficult subject to treat with. We should always be prepared to find that our opinions will be modified by his own reflections.

This latter position is practically lost sight of. Parents seem to forget that a youth is, in some measure, an altered being; that he is feeling and thinking as an independent existence; that many new ideas crowd upon his mind, and give him emotions which are delightful from their novelty; and that all our aim should be to render these emotions sources of moral advantage, and to prevent their inducing injurious consequences. The savage, whose higher faculties have received no cultiva-

tion, may be expected to manifest sensations uncontrolled by any moral consideration; but the civilized being, who should trample on the sacred dictates of his moral nature, is so much the more reprehensible, as he will have erred in defiance of enlightened intelligence. The former, in committing errors, receives the punishment appropriated to every infringement of the natural laws, but he at the same time deserves our sympathy: but the latter, if he violate any principle of morality, even should he receive retribution, is covered with merited disgrace. There would be no difficulty in moulding the character of a youth at will, if we addressed him in the enthusiastic language so congenial to his age, and if we rendered our moral paintings as bright and vivid as his thoughts; for then he would identify them almost as his natural impressions, from the mere force of association; and most persons are pleased when they find that the notions of others coincide with their own.

It is obvious that we can only prescribe rules to cultivated beings. In such instances, we contend that nothing is easier than to realize the most sanguine expectation of the moral worth of pupils; and experience also assures us, that it is possible so to excite the higher faculties as to give the individual a distaste for frivolous or sensual occupations. This salutary effect would be invariably manifested in youth, if we made our conversation mere intellectual and moral lessons, but divested of all pedantry or pre-arrangement. We should have but this one object as the aim of all our instruction; namely, that the moral and intellectual faculties should be constantly engaged, so that the animal propensities might be prevented from becoming sufficiently energetic to influence the conduct of the individual. Conversational lessons are better calculated than any other plan to stimulate the higher fa-

culties of a youth, by exciting him, in the most agreeable manner, to think and act, a discipline which daily invigorates his mental powers, and promotes fresh improvements in his moral nature. And, as on a journey there is a satisfaction in knowing that we are nearer the resting-place, so also the mind becomes refreshed with the consciousness of having improved: hence it is well to express ourselves pleased with any new idea or new view of a subject which may be taken by a youth: if wrong or fanciful, let us point the defect out, but always by an appeal to the judgment, and not in such a harsh way as to lessen the self-esteem of the individual. There is a vast deal to be done by inspiring an intelligent youth with a proper degree of confidence, for he will then always apply to his parent or teacher as a valued friend, from whom he is sure of receiving any information he may require. We need scarcely repeat this truism, that true knowledge naturally induces humility: with this maxim we should imbue the mind of the pupil, who ought, at the same time, to be encouraged to make known, without hesitation, to his parents or teachers any idea which he deems worth repeating. By these means a noble modesty of manner would be obtained, equally removed from bashful timidity and from bold assurance. A senseless egotism, and still more senseless vanity, which not only some youths but many adults manifest, are the surest signs of superficiality and ignorance.

If we have given the child a prepossession in favour of knowledge in the earlier stages of tuition, he will continue whilst a youth to have a relish for truths, as unalloyed as are his dreams of happiness. We have only to communicate fresh materials for his observation, and he will continue the delightful taste: he may also have the

means pointed out of applying his elementary lessons on science to higher and more complex combinations and circumstances. But, parents and tutors often chill the natural energies of youth, either by an austere kind of gravity, or by adopting a harshness of manner and a severity of discipline, under the erroneous impression that by such means they may better enforce obedience to their commands: experience, however, proves that this mistaken conduct is at once destructive to the morals, and also incompatible with intellectual advancement. It is absurd to treat a youth as a mere matured child, in the strictest sense of the word, because the mental faculties have undergone a palpable change. It should be our rule never to chide a youth for giving an opinion, particularly when it does not militate against his moral nature: in this way we should preserve to him, and cherish, his self-respect, and self-respect ensures correctness of conduct. We have no doubt that a high sense of honour, founded upon the supremacy of the moral sentiments, could be easily inculcated at this enthusiastic period. Of course, we presume that the student will associate with cultivated persons, who may influence his conduct by their own manners and actions, as the imitative sense is very active at this period of life. Not only are the neglected and uninformed liable to the influence of example, but also the most gifted. For, so plastic are the mental faculties at this age of natural romance, that an apparently good youth may undergo a moral metamorphosis, from the accidental change of his companions; and the effects may be rapid and unexpected, but quite fatal in a short time to the health and moral welfare of the individual. What should act with peculiar force on the mind of a parent or teacher, is the very palpable fact, that the moral contamination is so in-

veterate, that it not only destroys the moral rectitude of the youth himself, but pre-disposes him to use his best endeavours to vitiate others who are still innocent and good.

We shall have achieved a grand object of education if we conduct our charge safely over the various dangers of this most susceptible and perilous period: after which the converse of the above results takes place. His unsullied integrity and chasteness of thought and action make him a beacon for the good to rally round, and a bright example to others starting on the high road of human toils and human temptations.

But, we by no means desire a youth to manifest the anxious solicitude of the adult surrounded by ties which demand all his active and most abstracted thoughts. This is not our object: we wish to see him happy, moral, and buoyant in spirit, without being either too volatile or too serious. It should be remembered that youth is the spring-time of existence, when all our faculties are ripening, and when they are most sensitive to the influence of surrounding circumstances; that it is the age of the most unalloyed sensations, the waking dreams of life's day, when all the busy faculties delight us with their activity; when the natural elasticity of the mind renders the spirits light and joyous, and makes the prospect before us bright and sunny, displaying every object in the most vivid colours. There is a refreshing and inspiring joy which is breathed over our youthful days, which, when contrasted with the active turmoils of manhood, may be regarded as the Elysian portion of life. For, it is in youth that nature is seen in her best and most bewitching charms, when all her stores greet the wondering eyes, and excite an admiration for the wisdom and design which is every where manifested,

from the smallest animalcule to the stupendous universe itself. Every new object is a source of gratification to the mind, as novelty commends it, and eager curiosity urges the individual to notice any peculiarity connected with it; whilst the consciousness of being improved by each acquisition of knowledge gives to the student an additional zest for adding daily to his stores of information. It is obvious that such a direction and application of the higher faculties must tend to awaken emotions and sensations of the purest kind.

Nothing could compensate a youth for the deprivation of such refined enjoyments; neither the dance nor the song, nor any of the usual insipid pleasures of fashionable life; nor the less refined amusements of middle or low life, often boisterous and degrading, can be deemed any adequate compensation. We would always inculcate the necessity and duty of acting for the benefit of others; that we were not made to devote all our time and all our faculties to our own mere personal gratification: and it is worthy of remark, that, in the moral government of God, in reference to human affairs, it is so arranged that the more a man acts in obedience to the dictates of the human motives, the more good he diffuses amongst his fellow-creatures, and the greater quantity of happiness he secures to himself. Individual and social good spring from one common source.

We therefore do not object to light and innocent amusements, which are essential for relaxation from constant thought on serious subjects; but, we would not wish to have these kinds of relaxation of too frequent occurrence, for there is some danger that they might interfere with the more rational and more beneficial pastimes. We particularly deprecate all such amusements as cards or any other species of gambling,

which may undermine the moral stamina, and lead to pernicious and fatal excesses of vice.

But then it may be said that, even upon our own metaphysical views, every youth is not alike susceptible to the beauties and wonders of the external world: we admit this to a certain extent to be true, but contend that so very imperfect have hitherto been the means for scientific instruction, that we can scarcely predicate the change that would be effected in the natural inclinations of youth, if a better system of tuition were generally adopted. But, contemplating the actual state of mankind, we may be asked whether we exclude works of art, as music, drawing, and the drama, for instance? We reply, certainly not: only that we qualify our answer by repeating a fact which cannot be too often inculcated; namely, that in an education conducted according to the natural order of our perceptive faculties, and the respective periods of their developement, a taste for all such light pursuits could be gratified without interfering with the more important subjects of education, such as natural history, and other sciences.

The reformer who may attempt to correct the existing abuses in education, will find more than one obstacle to overcome. He will have to battle with teachers who recommend a particular science or art, for no other reason than that, from habit, they have acquired a preference for it. Again, no practical improvement to any extent can take place until the whole number of the mental faculties is better understood, and cultivated. In consequence of an ignorance upon this subject, we often hear persons, otherwise intelligent, speak of an individual being without a talent for some science; but we have already shewn that, according to the capacity of the perceptive faculties, every person, not an idiot, might be

taught sufficient of the natural history of animals, plants, and minerals, for every practical purpose of life, and yet have ample time to acquire some other pursuit (music, or drawing) as a means for unbending his mind from the graver subjects of cogitation. We shall subsequently point out, that almost all the sciences would afford most delightful relaxation, if rendered clear by the expounder. In this place, we would briefly allude to the pleasure of optics, by the way of present illustration. What an endless source of pastime could be derived from the microscope, by which every drop of muddy water is shewn to contain numerous living beings, whose organization is more diversified than all the forms which fiction and imagination could find expressions to describe! Every thing that we behold is teeming with life; and endless wonders are thus presented of curious contrivances for our admiration or imitation: the earth, the air, the water, nay the very scum that sometimes covers the stagnant ditch, like a thin epidermis, are all filled with myriads of millions of living things, and yet, inconceivably small as they are, we may, with the aid of the above instrument, study their habits and economy! Again, the magic lantern, which is now principally used to exhibit the frightful and distorted objects of grotesque fancy, might be rendered highly useful for geographical and geological purposes: by it, countries could be represented, or, at least, particular cities; as well as various natural objects, such as rocks, mountains, and rivers, giving the pupil ocular pictures of things, of which he had gained only imperfect notions from the descriptions in his lessons or books.

But, to return to those subjects usually deemed relaxations: we think that they might be used for such purposes, and still be made subservient to the moral

or intellectual improvement of the individual. We may take, as an example, the drama, which, instead of being merely a source of amusement, might be turned to one of real improvement. The scenery and dresses would present a picture of the manners of past days, and, in this way, become a medium of imparting historical instruction, particularly if the characters and incidents were taken from the records of olden times, as is the case with many of the inimitable productions of the immortal Shakespeare. This admirable writer has delineated man, not as he is occasionally drawn in the closet, but as a being made up with feelings and sentiments which either degrade or elevate him, according to the use to which they have been applied. He holds a mirror up to view, in which may be seen the sad consequences of folly and the baneful effects of crime; and the advantage of being just, honourable, wise, and benevolent. And so correct are his portraits, that they may be regarded as types of extreme feelings or sentiments, which would suit human nature in all ages, whenever either the one or the other set of faculties predominated, so as to give some strong outline to the character. Under the present system of things, this advantage can never be realized, as the patrons of the theatre are too often the idle and the dissolute, who bring forward absurd pageants or immoral representations to suit a vitiated taste. The most moral portion of the community deprecate this otherwise innocent source of amusement by reason of its abuses.

It would occupy too much time to discuss other species of relaxation which are tolerated, but which are in every instance doubly injurious: cards, billiards, racing, boating, and the like, are so many sources of gratification to the animal propensities, and may on

that account become the occasion of broils, quarrels, and disappointments; and when we reflect that there is so much to learn, and that even our amusements might be rendered a means of information, the prevalence of such pernicious games is still more to be lamented. Of the vast variety of pleasing relaxation which might be derived from natural philosophy, Dr. Arnott's "Physics" might be cited as an illustration; as it is a work abounding with knowledge set off with so many of the most attractive graces of composition, that even the dullest mind might imbibe from it a taste for this interesting study.*

Nor ought we to overlook the physical advantages of gymnastic exercises, and the use to which these might be turned, as exhibiting models of the human form in various attitudes. Geometry, and Arithmetic, too, abound in sources of rational amusement. Applications of these sciences and others have been collected in the "Boy's Own Book," but their import and utility, both as a means of instruction and amusement, could not be generally appreciated by the greater number of boys, who are too ignorant of the principles of the different sciences. Even arithmetic is taught in rather too much of a mechanical manner.

We have ventured to take this hasty sketch of the endless sources of amusement, suitable to the taste of every youth whose faculties may have been early and properly cultivated. How many more happy faces should we see amongst all ranks of the community, if these plans were matured into a national system!

* Parkes' Chemical Catechism, Kirby and Spence's Entomology, and Williams' interesting work entitled "Art in Nature, or Science anticipated," might well be used for this purpose.

The Study of the innate Faculties of Man essential, before a Youth can know his various Duties.

The present ignorance which prevails among all classes on the subject of their own natural history is, in a great measure, the source of all the inconsistencies both in moral and intellectual education. To obviate this great error, we have only to communicate to youth of both sexes some general knowledge of their corporeal organization, and of the number of the mental faculties. A youth thus informed would feel himself responsible for his actions, instead of ignorantly violating the laws of the mind, as he is liable to do for want of a theory to instruct him. Some of the advantages of this knowledge may be enumerated: the individual would be sober in his anticipations, be effectually guarded from inconsistent speculations upon the future, as well as from the absurdity of setting up his own predilections as the standard for all other minds. He would perceive that the mental faculties of man are various and dissimilar, and that these faculties have a relative value; some being selfish, and others partly so; some partially disinterested, whilst others are useful to himself and his fellow-creatures. He should also be informed that this intrinsic difference of the faculties furnishes a scale of obligations; and that those which relate to self must be esteemed of less value than those which refer to God and mankind generally: whence he would conclude that he would be guilty of a crime if he violated any of the various duties springing from the latter, and if he omitted to check the selfish dictates of the former.

The advantage of such a system is incalculable: we have seen its beneficial effects where it has been tried. We therefore contend, that, at the age of puberty, this knowledge of self should be communicated for the purpose of enforcing the obligations of religion, morality, intellect, and health. A transcript of man's various duties should be placed in the most conspicuous light: the dignity of intelligent and moral actions should be strongly urged as tending to elevate our nature, particularly when contrasted with the debasing and destructive tendency of animal excesses. The picture need not be overdrawn, as the youthful mind, with its usual elasticity and quickness of perception, would easily distinguish and fill up the outline. The moral consequences may be anticipated: we should by such means present the youth with a chart of the seas over which he must steer his frail bark, and in which we should point out the rocks, shoals, and quicksands to be avoided, if he desired to reach the haven of contentment without injury or shipwreck; and such is the force of natural gratitude, when unsophisticated by selfishness and the world's usages, that, in the greater number of instances, such a youth would evince the strongest love to us in return for our solicitude, and a sincere veneration for the sageness of the advice.

But, an acquaintance with a system of mental philosophy is not enough: we must also communicate to the pupil some general knowledge of science, in order to teach him the various sources of physical and temporal good or evil to man. In a moral point of view, it would be enough to understand the duties connected with the different moral faculties; but it must be remembered, that we have intellectual obligations also; and to ensure the performance of these, we must cultivate the faculties

which originate them. The way to effect this end is, to improve the perceptive and reflective powers; and, thus, whilst we impart knowledge for their gratification, prevent at the same time that failure and disappointment which are the inevitable result of neglected education. The framers of a national system of education must, therefore, propose to themselves a two-fold object; namely, the moral advancement of the community, and a simple but efficient plan for communicating scientific knowledge. The great errors in existing systems have been produced by an inattention to man's compound nature as a moral, religious, and intelligent agent, and therefore they have failed in being productive of that general benefit which the amiable propounders contemplated.

On the Study of the Sciences.

We do not anticipate that any very general improvement can take place, until the governments of countries shall not only patronize education, but pass legislative enactments for establishing NATIONAL INSTITUTIONS, in which public professors shall instruct the people in the principles and applications of the sciences. Our present object is merely to point out the advantages of true knowledge, as the means of effectually banishing ignorance and superstition, and of inducing men to estimate the noble faculties of the mind, by acting upon all occasions in conformity with their dictates.

All the diversified objects of creation, with their almost endless phenomena, are classed under the heads of NATURAL HISTORY and NATURAL PHILOSOPHY. Sometimes the subjects ranked under each of these generic departments may be studied separately, at least for practical purposes. Sometimes, however, there is an in-

timate connexion between two or more of the sciences,* which, in such cases, are not so intelligible when singly examined. We are aware that it will be regarded by some as visionary, to suppose that the mass of the people can acquire a sufficient knowledge of the sciences to be useful to them: their time, it will be said, is occupied too much by the labour necessary for their existence, and under such circumstances an attempt to inform them may prove highly injurious. This is the language of selfishness, and, therefore, it is as futile as it is inconsistent with man's real nature. We would grant its cogency, if the individuals thus doomed to ignorance and degradation were naturally deficient in the perceptive and other faculties; or if we could deprive them of true knowledge with impunity. But, facts and experience speak in a more intelligent and emphatic language, pronouncing to both individuals and governments that the best security for the good behaviour and respectability of character of every citizen or subject is to be found in the cultivation of the moral and intellectual faculties; and that an ignorant populace is most likely to commit the greatest ravages on property and destruction to life,† because their animal propensities have been principally exercised, and their human faculties have remained torpid from not being called into a state of activity by proper education. We have been led into this digression by our desire to anticipate all objections; but our principal object being only to give general views, we must allow that, although all ranks would be better for scientific information, it should be modified in each instance by the ultimate pursuit of an individual.

* Mineralogy and Chemistry, for example.

† Such are the persons who burn, rob, and murder,—indeed, most who crowd our gaols.

For the purpose of rendering our notions upon this subject somewhat more definite, we shall regard society as capable of being divided into three grades: 1st, the wealthy and unproductive, constituting the higher classes; 2nd, the professions, trades, &c., usually termed the middle classes; and, lastly, the labourer, artizan, mechanic, and all belonging to the working classes. The leisure of the first class of persons might be turned to the noblest purposes; because the most patriotic might instruct the people as amateur professors, a rank far more ennobling than any that a star or ribbon can confer. The second class of persons are all interested in positive knowledge, and with a view to render the study of the sciences advantageous to them, the importance of theoretical knowledge in almost every art or situation of life should be pointed out. Thus, a sense of the utility of true principles would be induced; empiricism would be detected and despised; a desire would be excited for sound knowledge, not only as conducive to personal advantage, but for the purpose of elevating the thoughts to the higher object of public benefit. Much of course must be determined by the particular pursuit, but, as a general rule, this plan might be adopted.* Each science might be investigated for its own particular uses; next, for its general relations to other branches of science. Although, as connected with any art or trade practised as a profession, an individual might deem it sufficient to be acquainted with one peculiar science; yet a man of an enlightened mind would desire to know more: for, a science thus isolated would be like the knowledge of a few words in a foreign language,—a burden to the memory, and, as all mere smattering of knowledge must

* See the subsequent remarks on the Catalogue of the general and particular uses of scientific attainments.

be, proving nearly useless. The third class would derive much real good from some practical knowledge, even should it not be so minute as that spoken of in the preceding remarks. If the labourer possessed a sufficient quantity of positive knowledge to make him intelligent at his work, and to occupy his thoughts when at leisure, this would be a source of happiness to cheer him in his toils, and at other times would prevent that dissatisfaction which a blank mind and a tedious monotony induce; and above all, real information, at least in reference to the laws of health, would influence his moral nature, and thus be the most effectual guard against the brutalizing consequences of habitual intemperance.

These observations are made under the supposition that there would be a national system, without which the promised good must be otherwise much circumscribed, as no efforts of private munificence could realize any great amount of utility. Although, from our acquaintance with philosophical societies and mechanics' institutions, we are aware that no inconsiderable good is effected, and that individuals belonging to these institutions are morally improved;* yet, they form a comparatively small portion of the nation, and are generally confined to individuals of the second class, the first standing aloof from an ideal superiority which their wealth confers, and the third class doing so from the absence of any incentive to better their condition. If we turn from the latter picture to one more bright and consolatory, it will be seen that our anticipations for the moral and intellectual advancement of mankind are far from being visionary. We

* The London Mechanics' Institution we may take as an illustration: it is one of the most useful, having very intelligent members who prefer science to amusement: and we cannot resist our testimony to the moral good produced by their extensive information.

allude to the mass of practical information communicated to children in the infant schools, and if similar plans are matured for continuing to teach the arts and sciences to the boy and the youth, more good would be realized than even the most benevolent and enthusiastic have yet ventured to expect.

The progress which would be made by all classes of students would much depend on the mode of giving lessons. We venture to assert that, if the instruction were communicated in familiar lectures, and illustrated in every instance practically, more knowledge would be obtained in an hour (the time each lecture should occupy) than the unassisted labour of an individual would acquire in months, even with an ardent desire to be informed. As this plan is contemplated for the fourth stage of education, every youth apprenticed to an artizan or mechanic could, as we shall subsequently shew, spare many hours to attend such lessons, without interfering with the time necessary to acquire a perfect knowledge of his particular avocation.

Presuming that much information will have been imparted upon the nature of the various objects of the external world in the preceding stages of education, we shall now treat of the subjects which should be communicated to a youth, in order to render him capable of fulfilling his different obligations as an organized, moral, and intelligent being.

Remarks on a Catalogue of the Sciences essential for general Knowledge.

The laws of diet, exercise, and cleanliness, as conducing to the preservation of the health, should be taught in connection with some general information on the func-

tions of animal life; on digestion and assimulation; on respiration and circulation; on the influence which nutrition, climate, and temperature have on the growth of the body and its various parts; on the modification of the laws of diet by the particular temperament, shewing when stimulating or nourishing food is required; and on the mechanical influence of atmospheric changes on the organs of respiration and circulation, and the consequences upon the bodily health and spirits of individuals. Such general knowledge, besides being directly useful in preserving the health, would also have the good effect of preventing persons from being alarmed at sudden changes in their feelings, as they would know these changes depended upon natural causes, and would not, like many untaught persons, superstitiously attribute them to imaginary agents who delight in inflicting suffering upon mankind.

Particular Object of this Knowledge, to be modified by the probable Occupation of Individuals.

Although the above information might be imparted by the aid of models, and mechanical contrivances to explain the processes of respiration and circulation, still it must be confessed that, for more minute and practical knowledge, the organs should be shewn as they lie in the chest and abdomen, in order that the philosophy of their functions might be better understood. But, this would lead to the kindred sciences of anatomy and physiology;* and, if the subject should not be generally taught by

* Dr. Birkbeck gave an interesting course of practical lectures on the human body to the members of the London Mechanics' Institution. It is, therefore, no longer an experiment to be tried, as those lectures afforded to the numerous audiences much information and advantage.

demonstrations upon the human body, recourse might be had to the animal kingdom, either taking a few examples to shew the harmony of functions when the organs were similar, or pursuing the instruction by an examination of the various links of animal life, according to the following zoological arrangements.

1 MAMMALIA.
2 BIRDS.
3 FISHES.
4 REPTILES.
5 INSECTS.
6 CRUSTACEA.
7 MOLLUSCA.

OBSERVATION.

It will be obvious that, for other sciences and many of the arts, the great diversity in forms and contrivances to be observed on any large range of animal existence, must prove not only useful but instructive; mechanical skill may be continued to be exerted and exercised by repeated fresh contrivances; but if the models which God has set before men in the bodily structures of animals be studied, they will suggest the most perfect improvements.

A knowledge of the laws of animal life would prove useful for a thousand purposes: such laws, we mean, as the change of the nutritious parts of the food into blood; that the blood is the material from which is formed brain, nerves, muscles, bone, and all other tissues of the body; that the circulation of the blood would cease, and life itself be destroyed, unless this fluid received the vitalizing property (oxygen) from the atmospheric air during every act of breathing: besides those that regulate the brain, the nervous system and the functions of the muscles for the diversified motions of walking, running, jumping, lifting, and so forth. The action of the heart and the circulation of the blood have furnished data in some of the branches of natural philosophy:* and the organs of vision and hearing have supplied hints upon the laws of optics and acoustics. Besides these and other lessons on the

* Hydraulics, for example.

animal organs, we may trace to their laws the ideas of many inventions which now form some of the arts of civilized society. We shall select a few of the most obvious facts, by way of proving that there is no speculation in these notions.

1. The various coverings of animals suggested to man different kinds of dresses suitable to particular climates.

2. The great diversity in the forms of animals, the motions of their limbs, and the varied means used for progressing, and their offensive and defensive weapons, have contributed many hints for mechanical contrivances.

3. The skull and the other parts of the body have furnished many architectural principles; as, for instance, the arch, as capable of bearing the greatest resistance.

4. In mechanics, the many useful applications of the various contrivances of the divine mind for preventing accidents, dislocations, &c., in complex joints, hinges, &c., have been imitated by man, either for his use, or his pleasures.

5. The excavations of barrows, the buildings of the beaver, and various forms of the nests of birds, have also contributed useful hints.

6. The peculiar varieties of the manner in which the outer or external ear of animals is attached, so as to catch the slightest pulsation of air, might have suggested sails for ships, mill-sails, &c.

We could, in this manner, continue to make out a long list, particularly if it were possible to collect the first ideas that induced men to make a particular application of their discoveries. It is worthy of remark, however, that there is not any human invention which is not in point of fact indebted for its origin or its improvements to some natural object. Man has obtained his first knowledge in every instance from some part of

the endless contrivances of the great and Divine Architect of all things: and the only merit strictly due to him, is, in his having observed and imitated these models with promptitude and success. The inventor of the universal joint, for instance, no doubt, derived his first idea upon the subject from observing the ball and socket-joint of the thigh-bone.

Catalogue of general Knowledge continued.

Next to the knowledge of the laws of animal life, as a means of health and of promoting mechanical contrivances, we deem the kindred sciences of geology, botany, and geography, to be essential, particularly in a commercial country. On the present plans of tuition, each of these sciences is taught merely theoretically (if studied at all), and generally each one is studied singly, or they are all alike neglected in a liberal education. If, however, a classification like the above were adopted, much proficiency might be made in these sciences, and with greater facility than is generally supposed; particularly if models of mountains, rocks, and continents were procured as specimens of each, and the vegetation peculiar to them were used to illustrate each subject.

The study of geology, for general purposes, need not be prosecuted in its details: but drawings of rocks, mountains, &c., with the order of their superposition, could be exhibited, not isolated, but so connected together as to form a moveable diorama. By this plan, a very good general knowledge would be obtained of the nature of the earth, and the elevated portions upon the surface. Cabinets, containing specimens of the primitive and secondary rocks, with the substances (minerals) found in their veins and fissures, and also the organic

remains, would fix the name and property of each rock upon the mind; and, a regular series of clays, sands, and soils should be arranged in their relative situations, by which means not only geological, but also geographical information would be imparted. It would, nevertheless, add to the advantages of such lecture-lessons, if the vegetable productions peculiar to each country were described, together with the particular localities, whether they were rock, mountain, or valley; in which way a student would, without fatigue to his mind, acquire a general outline of botanical science. He would become acquainted with the links of vegetation: the lichens and moss would be associated with the rock or mountain; the fungi, with the damp muddy places; reed and ferns, with the beds of rivers, &c., &c. In this manner would be obtained a vast fund of knowledge on these very interesting subjects. Being acquainted with the native places of vegetable productions, and the peculiar classes located in different climates, the pupil would mentally apply the botanical indigenæ to distinguish any country he was speaking or writing of, and *vice versa*.

For the study of geography, these links would be found to be most important, if not altogether indispensable; because, whenever the memory was tardy in re-producing a mental picture of any particular tract of country, if we could only recollect the native plants, or the nature of the soil, or the kind of rock, mountain, or coast, we should have immediately a reminiscence of all the geographical features of a part or the whole of a continent, and every interesting fact which might be connected with the country.

It must, certainly, be the most natural order (according to the laws of perception) that, when treating of continents, we should divide them into particular tracts of

countries, and describe each part according to these natural characteristics: the soils, rocks, mountains, &c., and the natural mineral productions of each; the vegetation peculiar to particular soils, &c.; the relative proportion between the primitive and secondary rocks, the rivers which issue from them, the names of the valleys they traverse; besides, the names of the seas, their extent, and other peculiarities, and particularly the continents which they divide: by such helps (and any others which might be suggested) the mind would attain that kind of order and systematic arrangement of its thoughts and ideas, which are essential to the acquisition of clear and definite information. We therefore deem it necessary to connect the studies of geology, botany, and geography; for, when they are not associated, the pupil obtains only very confused notions, which he cannot apply in any practical manner.

Thus far we have confined our observations to these combined sciences as intellectual studies; but we would conclude by just pointing out the advantages to which they might be turned. The extent of the trade carried on with China for tea, with the East and West Indies for sugar and coffee, and with the Havannah for tobacco, is well known. Now, if the merchant received an education which should practically acquaint him with the mineral and vegetable productions of countries, this knowledge would prove not only useful for his own gains, but might be made through him conducive to the national prosperity.

The subject is too fertile to allow us to enter into details; yet it must be obvious that statistics, national arts and sciences, and political economy, are importantly connected with the descriptions of countries. It is a curious fact, however, that in most schools these sub-

jects, which are so naturally united, are taught either separately or not at all. Yet every educated person, who has an extensive acquaintance with such subjects, must have experienced, that in thinking of a particular country, its produce, its natural and artificial curiosities, the habits of the people, their manufactures, their commerce, and their customs and manners, are all intimately associated together.

It is for the sake of pointing out the importance of using the power of association, that we have given this hasty sketch of those kindred sciences which would be mutually advantageous to the student in his acquisition of knowledge. This may be made more obvious by a single illustration. There is a substance called Labrador Felspar,* which was first discovered by Mr. Latrobe, a Moravian missionary, on the coast of Labrador. Now, whenever we see this beautiful substance, we associate with it the cheerless locality it is found in, the excellent man who first sent it to Europe, the habits of the people, the useful labours of the missionaries, and numerous other interesting facts. If, then, a single substance can thus, from mere association, become the source of so many ideas, what would not a more systematic education produce?

Catalogue of general Knowledge continued.

Chemistry, being useful in many arts and indispensable to explain some of the other sciences, and being particularly useful in domestic economy, should be taught to all persons, whatever may be their future occupations. Not that we suppose it necessary for general purposes that

* It has been also found in other localities very recently; but the fact is still useful.

students should, in practically acquiring this science (as part of a useful education), enter into the philosophy of chemistry: our wishes extend no further than merely to communicate the principles and some of the details, together with the collateral sciences of electricity, galvanism, magnetism, and electro-magnetism, according to the pursuits of each student.

In many instances, chemistry must be taught with mineralogy: a knowledge of both is essential to the practitioner in medicine, to enable him to detect poisons and mix compounds. These sciences are also useful to the refiner, smelter, colour manufacturer, glass maker, and others. Chemistry is also important to the agriculturist, to enable him to improve soils; and it possesses this advantage over mere empirical plans, namely, that as long as the natural laws which this excellent science developes are observed, certain results may be relied on as sure and invariable.

The whole world is one vast laboratory; hence many of the functions of animal life are influenced by chemical phenomena. The circulation of the blood and respiration we have before alluded to, and shall only therefore remark in this place, that the state of respiration is modified by the density or elasticity of gaseous media: accordingly, when a man is upon a high mountain, the air being lighter there than it is at the level of the sea, the circulation of the blood is affected by the decreased mechanical action of air on the surface of the body; and, a similar effect takes place when we breathe in an atmosphere rather more specifically heavy than our own, whereby the blood is impeded in its circulation, the lungs gradually lose the power of action, and the vital flame is soon extinguished: this is the rationale of death by ignited charcoal. The gas which the charcoal gives

off (carbonic gas) being known to the chemist as destructive of life under any circumstances, he would be enabled to guard against such a catastrophe, and to avoid many other physical contingencies.

In cases where poisons have been taken by persons either from accident or design, the tyro of a chemist would be enabled to administer an antidote. If we attempted to treat of subjects that are indebted to chemical action for their results, we should require volumes: we shall therefore urge the fact, that without general information on this important science, the condition of man would greatly deteriorate. Although a sudden exigency may arouse the inventive faculties of even the barbarian, still, without a theory, he would find it impossible to overcome many evils of a novel kind. Difficulties, even with the aid of information, cannot always be avoided; but by the total lack of knowledge they are rendered doubly prejudicial and inconvenient.*

Catalogue of general Knowledge continued.

Geometry, Algebra, and the various applications of mathematical science, could be communicated to those young men whose future pursuits might be aided and advanced by these sciences.

English Grammar and Logic are indispensable, because without them, however a man may be enriched with true knowledge, he would not be able to speak with propriety; and, without some regular order in stating his facts, the reasoning upon them would be im-

* We often hear persons, who are considered well educated, complain in rainy weather, that the air is very heavy, when the reverse is the case, and their langour is occasioned by air not pressing heavily enough on the bodily organs.

methodical and inconclusive. But, their principles could be better imparted at the fourth stage of education than at an earlier period; because even the terms of these sciences require an intelligent mind to comprehend them. The usages of society and the advantages of conversation would have already inculcated some notion of the art of arranging sentences according to the idiomatic forms of the language, and then the philosophy of this collocation might be explained in familiar lectures upon the subject. And we think that by the practice of translating words and sentences of another language, after the pupil had become acquainted with his own, he would comprehend, by observing the analogy or difference between the two languages, the rules for grammatical composition in the foreign one, with much greater facility than by the usual methods.

The study of Rhetoric might be added in some cases to the above course. By this art a youth would attain clearness of diction, and perspicuity and grace in his composition, and would learn to infuse an elegance of manner into the oral delivery of his sentiments.

Historical reading is essential for obtaining a knowledge of the laws of nations, and the occasions which gave rise to many statutes and customs otherwise inexplicable. History is also useful in the study of moral philosophy.

Catalogue of general Knowledge continued.

Drawing and Perspective would be essential to the architect and painter, and would also be of great assistance to the young naturalist, the mechanic, and all who might require skill in forming diagrams or patterns, and hence these accomplishments would prove useful in many

of the arts. Yet we do not consider them as actually so important as chemistry, or any of the preceding branches of knowledge; and should not deem a national system of education to be defective without them, any more than if the science of music were also excluded.*

There are many of the sciences not included in this catalogue, as, for example, pneumatics, hydraulics, hydrostatics, and others; but they could be introduced as necessity might dictate, the teacher taking care to observe their natural connections, and thus to give the pupil clear and practical views of every subject to which his attention might be called.

* The above catalogue is proposed merely with a view to point out the best and most useful knowledge for bettering the moral and intellectual character of all ranks of society. The fine arts might be pursued; but they are not indispensable.

CHAPTER XIV.

PRACTICAL REFLECTIONS.

We do not anticipate any objections being made to the practicability of our views of scientific education by those who have contemplated the advancement of pupils, when real knowledge is communicated instead of mere theoretical information. It may be said, that however such a system as we have sketched may be capable of being acted upon by the higher and most wealthy portions of the middling classes, the greater number of persons must necessarily be excluded by the necessity of devoting themselves to the labour of gaining a part of their living at the age we have fixed on for the fourth stage of education. We are aware of the fact that, at fourteen years old, boys are placed out to learn some handicraft or trade; and, although we do not anticipate that this practice will be dispensed with, yet we contend that some alterations may be made, so that, at this most interesting period of life, the individual may improve in moral worth and intelligence, instead of being abandoned to ignorance, in the strictest sense of the word. The custom of binding a youth for five or seven years to learn that which, in all probability, could be acquired in a few months, must be regarded as the selfish remains of a barbarous age:* it is a tax upon the period of life most

* The first historical notice of the term of apprenticeship is found in the Bible: Jacob served his idolatrous father-in-law seven years for his wife, and after being cheated served another seven years.

adapted for receiving instruction, and therefore is a grievous hindrance to the means of acquiring extensive and general mental improvement. It might be justifiable in former days, when a pupil was necessarily ignorant of all real knowledge, or when the cupidity of the master induced him to *mystify* his art, in order to make it more appreciated.

But, when a youth is well informed by a practical education, the mere instruction in the process of an art or trade would not require any longer time than we have mentioned, particularly when the master shall feel it his duty and his interest to communicate every thing to his pupil, clearly and intelligibly. In this way ample time would be allowed to a youth for attending public schools of science, by which means he would not only improve in his particular art, but would also ensure respectability and moral satisfaction.

Practicability of these Views, and the Reasons why they have hitherto partially failed, when tried.

It will be easily proved by the evidence of facts, that man is capable of much greater advancement in morals and in intelligence, when he shall have his innate faculties trained according to their laws, and when he shall be fully instructed in the duties and obligations which these faculties impose upon him. There are two primary considerations which are essential, before we can hope to render the blessings of education universal. The first is, that man, although an intellectual being, requires to have his various powers called into action according to certain conditions; and that this must be done (as we have before intimated) according to a natural order established by the Creator himself. The second is, that he is en-

dowed with certain moral faculties which lead to the happiness of the individual and the welfare of the community, if they be cultivated, but produce the opposite effects if they be neglected. This knowledge gives us a clue to the reason why the progress of society towards a better state is so much obstructed: the two great objects of man's existence have been generally separated: some aiming only at the moral advancement of man, whilst others have only laboured to make him more intellectual.

It will be our present purpose to demonstrate that education ought to embrace every thing that may improve the health, morals, or understanding: we will begin by taking a hasty glance at what has been done towards this most interesting desideratum. For the sake of connecting the various circumstances which have produced partial failure in the attainments of the above advantages, we must allude again to the infant schools and mechanic institutions, because in them an attempt at teaching upon part of our plans has been tried.

The children of infant schools, composed in most instances of the poorest classes, are taught a vast fund of information, consisting of numerous facts relating to the animal, vegetable, and mineral kingdoms; they also receive moral instruction. The latter is not so effective as might be anticipated with minds so pliant, because it is either neglected at home, or discontinued in more advanced schools. By this we mean, that moral culture does not constitute, as it should do, the main object of education. For it is the moral sentiments which alone confer dignity and respectability on man, and which give to his intellectual powers either a useful or an injurious direction. Nevertheless, the fact stands uncontroverted, that to render men intelligent, real knowledge must be

communicated to them, and that this must be done during the time of childhood; and if in infant schools the children acquire such extensive information even before the age of seven years, what might not be realized if the system of teaching every thing practically were pursued through the subsequent stages of education? There is a well-known adage, that "for the mind to be healthy the body must be so,"—a truth which even the most superficial may verify. How then can we expect that elasticity of mind and vividness of ideas in children who have been placed in what are called the respectable schools, where they are not only cramped with lessons they do not understand, but are fixed to their forms or benches like statues, so that the seeds of disease are often thus unintentionally sown in the youthful constitution? This is obviated in the infant schools, where they receive their lessons under the appearance of playfulness and pastime, by which their bodily health is improved and not injured; besides that they are allowed many hours of relaxation, during which their little minds have something interesting to dwell upon, derived from their numerous and pleasing lessons, and therefore are not preyed upon and enervated by listlessness, as is the case with children at this age under any other system.*

To the mind capable of analogical reasoning, it will appear that if so palpable a superiority have been obtained by children whose perceptive faculties have been addressed, every higher branch of knowledge is equally within the reach of youth. And, ought any effort to accomplish so desirable an end to be left untried? Our motto expresses, "that the volume of nature is the book

* We would advise those interested on this subject to read Mr. Wilderspin's highly-pleasing and benevolent work, entitled "Early Discipline," &c.

of knowledge;" and as our faculties (perceptive) were intended to make us acquainted with all the objects of the external world, surely that end ought to be systematically promoted. But, we do not regard an intellectual education as capable of producing its full effects, unless the sentiments of justice, love, piety, and the other moral attributes be simultaneously cultivated. By uniting the cultivation of both sets of faculties under one system, the social and domestic relations would become more refined, so that happiness and contentment would sweeten the meal of the humblest being, who would learn to appreciate the dignity of his moral nature as well as the more common advantages of knowledge; and thus whenever he used his eyes and ears, to examine the wonders of the animate and inanimate world, a purer joy would gladden his heart than any that could possibly be derived from sensual gratifications: then, and not till then, will the moral and religious sentiments assert their proper influence in regulating the actions of men, and in infusing harmony into the social state.*

Remarks on the unfounded Prejudices against universal Education.

It is objected to these views, that instead of education producing a moral effect upon the minds of the poor and humble portion of the middling classes, it has only so far tended to make them dissatisfied with their condition. This we deem either a subterfuge or a fallacy, originating in prejudice, because we deny that there exists a system of education which comprehends the means of

* DRAM-SHOPS might then be closed, and GAOLS converted into public lecture-rooms and museums.

restraining the feelings, whilst it enlightens the intellect; which fosters the moral qualities, and, at the same time, communicates the means of physical health. Can that be termed education, which teaches *reading*, but not the meaning of words; and *cyphering*, without any real information of the value of numbers; and which regards a good hand-writing as indicative of genius? We have shewn that education ought to take a much wider range; that it should embrace not only a knowledge of ourselves and the things by which we are surrounded, but also develope the various relations which our diversified powers bear to our fellow-creatures, to the external world, and to our Creator. Now then we would ask objectors to intellectual improvement if they consider the *Lancasterian*, the *National*, and *Sunday* Schools to have taken such a range of man's various duties?—whether they have addressed all his faculties? If they have not (and we contend that they have not), then how can they confound their imperfect measures with a more enlarged system, which would fully inform the intellect, and teach men to be moral, humble, and wise?

When the experiment shall have been tried of administering knowledge to children, and of cultivating their moral nature, from the very time when they begin to walk to the sixth or seventh year; when this system shall have been pursued to the age of fourteen, and then the higher branches of knowledge shall have been imparted; and it shall have been found that persons so educated are alienated from justice, from mercy, from sympathy; that they have no relish for the delightful knowledge of God's works and his beneficent providence, and that they continue (like the unreclaimed boor) to prefer sensuality, intemperance, dishonesty, revenge, murder, and every irreligious act; then, and not till then, let it be regarded

as a tenable argument to maintain that man is worse for having his moral sentiments and his intellectual faculties cultivated!

But we will proceed to answer another objection equally unfounded. We have heard it stated, as a weighty argument against teaching the sciences to youth whose future occupations will be of a laborious kind, that in mechanics' institutions there may be observed amongst the members great self-conceit, arising from the superficial nature of their acquirements, a fault which is to be ascribed to the number of the subjects usually taught them, and which in most instances induces a scepticism fatal to their morals and their happiness. This is a grave charge, but it is one which is highly exaggerated; and as we feel deeply concerned for the welfare of these and similar institutions, we cannot resist pointing attention to the causes which originate such erroneous statements. We admit, then, that these institutions have not yet proved so useful as they might be made, because the friends and conductors of them have been unacquainted with the true theory of the fundamental faculties of man; and therefore their plans have been somewhat defective in appliances for arousing into activity the moral attributes, and the improvement of the mere intellect has too exclusively engrossed attention. But this defective system of *partially* cultivating the various faculties is not confined to mechanics' institutions: it is the source of error in all others, and will remain so until laws and systems are framed in accordance with the laws of mind, instead of being founded upon the suggestions of caprice and uninformed experience.*

* By *uninformed experience*, we mean that laws are made without any reference to the compound nature of man; and this is owing to the want of a correct theory of mental philosophy.

But many of these errors in tuition will be soon amended. The committees of the London, Edinburgh, Derby, Hull, and many other mechanics' institutions, have endeavoured to remedy this vital defect, by entertaining lectures explanatory of the natural history of man. In these courses the nature of man's obligations has been unfolded, and the members have expressed satisfaction, and it may be hoped will have derived some moral advantages, from them. Yet we trust the time is not far distant when the moral sentiments will, in all these seats of instruction, be addressed in a direct and uniform manner, by systematic courses on the various duties of moral agents; and that the developement of those faculties will not only be regarded as the means of improvement, but as the object of all education.

But, there is a charge made by some persons of superficiality in knowledge, on the part of young men who are members of mechanic and other similar institutions. The charge is not altogether unfounded, and it arises from this circumstance:—the various lectures being upon so many subjects, are desultory in some instances, and too little systematized in others; and therefore they tend to produce a heterogeneous mixture of ideas, instead of clear and comprehensive conceptions, so essential to improve the intellectual and moral condition of the individual. These defects are easily corrected by grouping the sciences, and by connecting those of a kindred nature, and which mutually explain complex phenomena.

But with all the disadvantages complained of, and admitted to exist, these institutions have done, and still are doing, incalculable good. They will oblige the higher grades of society to cultivate their minds, and not continue satisfied with mere shadows of knowledge, whilst the mechanic and artizan possess substantial in-

formation on the various branches of natural history and natural philosophy!

Recapitulation of the Advantages of a systematic Plan for Moral and Intellectual Education.

The more we reflect on the capability of human nature for improvement, and that man is by his organization the most perfect of all created beings, the more we regret that the greater number of the race act so much under the controul of the lower propensities, and that, even among the educated classes, moral culture is too often left to the cold and heartless influence of precept.

It will have been recognised, that according to the principles advocated in these pages, we deem the moral and religious sentiments as being the most important of all our faculties; but this fact is too often lost sight of in education; or else teachers are not aware that the feelings may direct the application of the intellectual faculties, and that thus the dictates of man's moral qualities may become too feeble to restrain his selfishness.

When, however, the moral powers have been early trained and appealed to as the motives for all actions, and the intellect is enriched by an acquaintance with the Creator's works, man becomes truly humanized. We have therefore endeavoured to prove the advantage of a system of education which should realize these views. In order that morality may be practically enforced, and that every kind of knowledge may be communicated in the simplest possible manner, we have shown the importance of illustrating every subject by specimens or experiments, of rendering descriptions clear and definite, and of recommending precept by example. But, the most important subject we have discussed is the application of

the organic laws, which are the means of making human improvement certain: we shall therefore recapitulate the advantages to be derived from this latter kind of knowledge.

If a system of education were organized according to the progressive developement of the mental faculties, much more would be realized than even our warmest speculations have anticipated. In the first and second stages of education would be imparted a knowledge of things in the animal, vegetable, and mineral kingdoms, and the names by which each object is distinguished: in the third stage, would be communicated all necessary information on the qualities and properties of all useful subjects; and in the fourth stage, the preceding divisions of knowledge would be arranged into their natural groups of genera and species, orders and classes. Besides this comprehensive classification, there would be also given a general acquaintance with the laws of animal life, and with all the mental phenomena; and thus instructed, a youth would be qualified to contemplate the great connection or relation between all parts of the visible creation and his own valuable faculties.

On the other hand it cannot be denied, that the effects of a contrary system are doubly prejudicial to an individual. For not only is the mind left a blank as regards true knowledge, but this very ignorance induces a specific deterioration of the moral character; because when a youth begins to feel the force of animal desires, he has no restraining principle, or at least it often operates too feebly to be effective.

Another practical advantage may be derived from the plans we advocate: information would not only be useful when imparted according to the above arrangements, but would prove also agreeable, a quality which is highly

essential for general purposes, and which could be secured by modifying the instruction according to the natural capacity and probable pursuits of the pupil.

However restricted the mental capabilities of a youth may be, we still deem it important to direct his attention to some of the innumerable objects of the terrestrial world, which, like a mighty store-house, is filled with facts and phenomena, suitable to our wants, and capable of furnishing us with endless and refined pleasures. It is also evident, that information on the works of the Creator may be extensively applied to the arts. In the catalogue of general knowledge we have adduced some instances, but the following epitome will suffice for our present purpose. An individual who is acquainted with the different animals that inhabit the earth, the air, and the waters, and who studies their varied and beautiful forms, and their still more wonderful economy, will find some advantage, whatever his avocation, if it be connected with the mechanic arts. In every other portion of this stupendous world the student would find an impress of the Divine Mind, and fresh sources of knowledge at once astonishing and delightful. The earth is filled with wonders! Its surface presents the richness of vegetation in endless forms, from the humble lichen, which covers with a skin-like substance the sides of rocks, to the stately oak, whose branches are spread out with peculiar luxuriance. Then, if the earth itself be examined; its fissures, containing so many beautiful mineral substances; its mountains, filled with metallic veins, and with marbles of every hue and colour; its clays, essential to so many purposes; and its soils, suitable to such variety of vegetation; all conspire to attune the soul to hymn the Creator's praise, and fill the mind with endless sources of purest gratification.

Besides these things, a knowledge of the connection between different sciences, and of the uses of mineral and vegetable substances in chemistry, natural philosophy, medicine, and the arts, afford so many fresh means of information and pleasure. It must therefore be evident, that for the well-being of society, it is essential to make education in every instance practical, and if that be done, we need not fear that it will not prove beneficial. But, in concluding these remarks on the advantages of knowledge, we cannot resist observing that a moral education (such as the one we have contemplated) might be rendered the hand-maid of pure religion. Justice, truth, love, and piety, would be the natural consequences of such instruction, because it would be accompanied with an intelligent consciousness of the infinite power of that great and good Being who framed the universe, and whose benign providence takes care of every living creature with more than a father's kindness and solicitude.

Finally, we must also regard the fraternizing consequences of such mental culture. There would be manifested a practical forbearance towards each other, because we should admit the fact of a diversity of natural gifts, and hence, although we should admire the noble and intelligent, we should pity the imbecile, and regret the foibles of a sinning brother. And let it be impressed as a truth naturally resulting from such a state of moral and intellectual cultivation, that by it the mind is ennobled, whilst the judgment remains unclouded by prejudice: men are not esteemed for any thing so adventitious as wealth; but the good and intelligent are respected, whatever may be their rank or occupation.

Concluding Remarks.

Before parting with my Reader, I would urge upon his attention two errors, which are especially opposed to a system of natural education; but when these obstacles are removed, the principle would be generally recognised and acted upon. First, teachers themselves must be better informed upon subjects of science and natural history than they usually are, and they must be regarded as the most useful members of the commonwealth:* when this is the case, their labours will be more effective, and they will be respected as the most valuable contributors to human happiness, and to the peace and health of the community. Secondly, when teachers are scientific, they do not sufficiently depend upon the simplicity of truth, but tire their pupils with a variety of technicalities, and the frightful terms which they use form one of the barriers which must be removed, before society will make much advancement in real knowledge. On the present systems, the pupils in junior classes are taught by books to read concerning things they have never seen, and of curious processes which could not be comprehended by any kind of description. They then come into lecture-rooms learnedly ignorant. We are glad that the principle begins to be recognised, that words cannot give ideas: hence an improvement in tuition may be anticipated. For words can never convey ideas,

* The cultivation of all the various faculties being their province, they should be respected and rewarded; but in England they are too often treated unworthily, and their high and responsible occupation is by no means appreciated.

unless the things they represent are seen or known; or unless they have some resemblance to others which have been seen before.

But we repeat that true knowledge confers happiness as well as power; and therefore, to ensure the moral respectability of mankind, care should be taken to place within the reach of all classes the means of obtaining positive information respecting all external things, and respecting the various obligations springing from the different mental faculties. Such an education, if it could not enable us to prevent or foresee casualties, would in some measure enable us to alleviate their effects. It should be remembered, that individuals, like nations, are subject to sudden vicissitudes and unexpected changes; but the man who has had all his faculties educated, will possess too many resources to suffer him to be depressed by any ordinary calamity, and will thus be enabled to preserve a consistency of conduct under all circumstances: he will be neither insolent in prosperity, nor servile in misfortunes; he will comprehend his true relations to the external world and to his fellow-creatures, and thus be always disposed to noble rather than grovelling actions; because he will know the dignity inherent in him as a moral and intellectual agent, and (whatever may be his station) will endeavour to submit to all the natural laws, physical, organic, moral, and intellectual. If there are things he cannot comprehend, or exigencies which he cannot avert, he will regard them as the fiat of unerring Wisdom, and will never presumptuously speculate on the design of Providence, but continue to observe his various duties; he will be temperate and frugal, and preserve his health by exercising his bodily and mental functions. He will delight in the active manifestation of his moral attributes, and will be continually increas-

ing his knowledge and happiness by a more intimate acquaintance with the wonders and contrivances in the objects around him: these lessons he will read without tiring, and, in adding to his own improvement, will render himself more useful to others. In this way, the man who has been properly educated will keep always in view the ends of his existence, invariably striving to make all that occurs to him (whether he be buffeted by storm, or bask in the sunshine) subsidiary to his moral advancement!

This is a summary of the natural results which would be effected by a system of education based on a correct knowledge of mental philosophy, a philosophy which proves that the intellectual qualities of all men are essentially similar, and that the only difference necessary to be observed in the intellectual tuition of individuals is merely to modify the various branches of study suitably to their particular conditions and pursuits; but that the moral culture of all should be universally the same, because the duties springing from the moral code, which is bound up in our organization, cannot be dispensed with, unless society can exist without the exercise of justice and benevolence.

EXPLANATION OF TERMS

Strictly Technical,

OR RENDERED SO BY BEING USED IN A PARTICULAR SENSE IN THIS WORK,

ARRANGED ALPHABETICALLY.

Abdomen.—Belly.

Acoustics.—Doctrine of sounds. In its more comprehensive meaning, it explains the structure of the ear, and its contrivances for receiving the pulsations of air; and also the manner in which sounds are modulated. (See *Organ of Melody.*)

Acquisitiveness.—Instinct to acquire. (See organ.)

Adhesiveness.—Instinctive affection. (See organ.)

Affective Faculties.—The *feelings* and *sentiments* which give us emotions and sensations. (See chapters III. and IV.)

Alimentary Canal.—The gullet, stomach, and intestines.

Amativeness.—Physical love. (See *Function of the Cerebellum.*)

Anatomy.—The doctrine of the structure of the various organs of the body, comprehending the situation and number of the bones; the ligaments that connect them together; the muscles which are attached to the bones; the situation of organs within the skull, brain, nerves, &c.; those contained within the chest, as the lungs, heart, &c.; and those contained within the abdomen, as the stomach, liver, gall-bladder, intestines, &c., &c.; the courses and origin of the nerves, arteries, veins, &c.; the situation of the numerous glands that secrete tears, milk, &c.; and the situation and structure of the organs of the external senses, &c.

Approbation (Love of).—Desire of applause. (See organ.)

Benevolence.—Innate sense of kindness, mercy, sympathy. (See organ.)

Bilious Temperament.—(See *Temperaments,* and chapter II.)

Brain.—A compound organ enclosed within the skull. (See chapter I.)

Carnivora.—Animals which feed on flesh. (See *Organ of Destructiveness.*)

Causality.—Inferential faculty. (See *Reasoning Powers,* chapter V.)

Cautiousness.—Instinctive fear. (See organ.)
Cerebrum.—Brain.
Cerebral.—Relating to the brain.
Cerebellum.—Little brain. (See chapter I.)
Colour (Organ of).—Perception of harmony or relation of colours.
Combativeness.—Instinctive courage. (See organ.)
Comparison.—Analogical faculty. (See *Reasoning Powers*, chapter V.)
Congeries.—An assemblage.
Constructiveness.—Instinct of contrivance. (See organ.)
Conscientiousness.—Sense of right and wrong. (See organ.)
Convolution.—The folding up or folds of any thing. (See *Structure of the Brain*, chapter I.)
Cranium.—Skull.
Cranial.—Relating to the skull.
Crista Galli.—A small elevated portion of bone, situated in the anterior and base of the skull, dividing it exactly into halves between the eyes. (See chapter I.)
Dental.—Relating to the teeth. (See *Organ of Destructiveness.*)
Destructiveness.—Carnivorous instinct. (See organ.)
Eventuality.—Memory of events, phenomena, &c. (See organ.)
Firmness.—Instinctive perseverance. (See organ.)
Fontanelle.—The opening on the top of an infant's head. (See *Skull*, chapter I.)
Frontal Bone.—The forehead from the temples.
Form.—Perception of symmetry and proportion. (See organ.)
Function.—The use of an organ. (See *Physiology.*)
Hemisphere.—Half-globe, used in this sense to denote the half of the brain, which is a double organ, and divided into two equal parts. (See *Brain*, chapter I.)
Herbivora.—Animals which feed on grain, pulse, and other vegetable matter. (See *Organ of Destructiveness.*)
Heterogeneous.—Made up of particles of dissimilar properties.
Homogeneous.—Composed of particles of similar properties.
Hope.—A sentiment which urges the mind to regard a future state. (See organ.)
Ideality.—Sentiment which gives imagination, fancy, taste, enthusiasm. (See organ.)
Imitation (Organ of).—Source of expression and natural language. (See organ.)
Indigenæ.—Native.
Individuality.—Perception of existence and memory of facts. (See organ.)
Inhabitiveness.—Love of place, the feeling of *amor patriæ*. (See organ.)
Instincts.—Impulsive sensations or emotions which urge to determinate actions; in man, instincts result from the affective faculties being allowed to act without the control of the intellect.

Intellectual Laws.—The laws according to which the understanding is developed, governed, or in any way influenced.

Laminæ.—Leaves or layers.

Laminated.—Being in layers. (See *Skull*, chapter I.)

Language (Organ of).—Verbal memory. (See organ.)

Locality.—Memory of places. (See organ.)

Lymphatic Temperament.—(See *Temperaments*, and chapter II.)

Marvellousness.—Instinctive credulity. (See organ.)

Masticatory Organs.—(See *Organ of Destructiveness*, where allusion is made to the difference of the teeth in the two great orders of animals.)

Mastoid Process.—A bony protuberance behind the ear for the attachment of a muscle.

Melody (Organ of).—Innate perception of the harmony or the discordance of sounds. (See organ.)

Mesial Line.—Middle line of the head. (See chapter I.)

Moral Laws.—The obligations founded upon the innate moral and religious sentiments of man. (See chapters VI. and VIII.)

Nervous Temperament.—(See *Temperaments*, and chapter II.)

Number (Organ of).—Perception of quantity. (See organ.)

Occipital Spine or Process.—A protuberant bone at the lower part of the back of the head, for the attachment of muscles. (See chapter I.)

Order (Organ of).—Perception of arrangement. (See organ.)

Organic Laws.—Those laws by which the organs of vegetable and animal bodies increase. These laws also furnish us with the processes of increase, as, in the first instance, the nourishment is changed by the stomach and the other digestive organs into blood; and this result of dead matter is converted by each living organ into a part of itself, either by secretion or assimilation.

Parietal Bones.—Bony walls; *i.e.*, the sides of the head from behind the ear (mastoid process) to the temples.

Pelvic.—From pelvis, the bony receptacle at the lower part of the abdomen, which contains the stomach, intestines, &c. (See *Organ of Destructiveness.*)

Philoprogenitiveness.—Love of offspring. (See organ.)

Phrenology.—Discourse on mind.

Phrenomatic Laws.—Laws relating to the mind; namely, the feelings, sentiments, perceptive and reasoning powers.

Physical Laws.—These laws either comprehend the whole of the material universe (from *physis*, the Greek word for nature), or (as we have applied the terms, in a more restricted sense) the inorganic masses composing the globe, the gases, and other elements, not actually vegetable and animal. Physical Laws are also terms expressing the difference between the modes of increase in animal and in vegetable bodies, and in the mineral substances; the former adding to their bulk by assimilating

the nutritious portions of food; and the latter by deposition and increment.

Physiology.—Doctrine of the general principles of vitality; also comprehending particular and peculiar modifications of the vital actions; as, for example, the functions of the spinal nerves for sensation, volition, and respiration; the functions of the brain for feelings, sentiments, and intellectuality; the different functions of the external senses, as the optic nerve to see with, &c.; the functions of the muscles for varied simple and compound motions; the function of certain glands to secrete tears, milk, &c., &c.

Sanguineous Temperament.—(See *Temperaments*, and chapter II.)

Secretiveness.—Instinct of cunning and evasion: also an element in prudence. (See organ.)

Self-esteem.—In its good sense, the instinct of self-preservation, but generally used with a reference to its various abuses. (See organ.)

Sensorium.—The seat of all sensation. Physiologists consider the brain as the focus of all sensation attended with consciousness.

Size (Organ of).—Perception of distance and perspective. (See organ.)

Sutures.—The term given to the inimitable dove-tailing of the bones of the skull. (See chapter I.)

Superciliary Ridge.—Eye-brow; which is more or less projecting in proportion to the size of the brain, at the anterior and inferior portion of this organ. (See chapter IV.)

Temperaments.—Constitutional peculiarities, which give greater or less activity to the bodily and mental functions. They are called *nervous, bilious, sanguineous,* and *lymphatic.* (See chapter II.)

Time (Organ of).—Perception of duration. (See organ.)

Thorax.—Chest.

Veneration (Organ of).—Innate sentiment of respect; also essential to religious notions. (See organ.)

Weight (Organ of).—Perception of momentum or resistance, gravity, &c. (See organ.)

Wit (Organ of).—Used to express the perception of contrast, and constitutes the antithetical faculty. (See organ.)

THE END.

J. AND J. JACKSON, PRINTERS, LOUTH.